THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

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LUTHER TUCKER AND JOHN J. THOMAS, EDITORS.

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The Cultivator and its Friends.

There are some suggestions we should like to make to our friends, while we heartily congratulate them on the prospects of THE CULTIVATOR for 1855, and as heartily thank them for their instrumentality in bringing them about. We have endeavored to answer most of their remittances by letter,—we did hope to be able to acknowledge all thus personally,—but they have poured in upon us too rapidly to admit of this,—and it is therefore necessary to call attention here to some points on which many correspondents have requested an explanation, which, if possible, would have been given by letter.

Our Premium List,

To which we desire to call particular attention, not only because it has not been clearly understood by some, but also because there are yet upwards of TWO MONTHS before it is to be decided,—will be found to offer great inducements for exertion on the part of agents, who can in any way spare the time necessary for canvassing their neighborhoods thoroughly. We cannot believe but that every man who takes a paper of any kind whatever, will on being shown the value of THE CULTIVATOR and REGISTER, and their unprecedented cheapness, gladly consent to subscribe for it. There are numbers of our friends who have already sent in considerable lists, a little exertion on whose part would place them beyond the reach of competition as far as several of the prizes are concerned. And there are many others, who are living where there is a great and growing appetite for agricultural reading of the *best and most reliable* kind, and who might overtake and outstrip former competitors, if they would spend a little time in earnest efforts, unless indeed the former immediately avail themselves of our first suggestion. The more spirited the competition, the more satisfaction the prizes will give, and the greater the benefit to us, and to the agricultural world. We repeat them here:—

1. FOR THE LARGEST AMOUNT OF CASH paid in before the 10th of April next, whether for *The Cultivator* alone, or for the *Country Gentleman*, or for the *Illustrated Annual Register*, or for all three together, according to their respective terms—FIFTY DOLLARS.

2. To the one sending us the next largest amount, FORTY-FIVE DOLLARS.

3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest,.... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLL'S.
7. For the next largest,.... TWENTY DOLLARS.
8. For the next largest,.... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS.
10. For the next largest,.... FIVE DOLLARS.

Our Club Subscribers

Are equally indebted with ourselves to the exertions of the agent by whom they were enrolled, and will they not each and all make some effort to extend our circulation, and thus make his task easier another year, as well as give their neighbors the benefit of our pages. We will take *each subscriber sent by the member of a club*, as an addition to it, and consequently, send him the CULTIVATOR and REGISTER for FIFTY CENTS. Will not agents when they take a man's subscription urge him to assist them in canvassing the town, and themselves send us the names thus obtained.

Where we have now

Single Subscribers, or from One to Ten,

Cannot a full club be made up? The copy of the Register which each one will receive, will be some return for his proportion of the needed exertion, and we can only repeat our offer to *send the Register* to any who purpose thus to exert themselves. And more,—in view of the general depression as to money matters, and with the hope of making the way for such a circulation for THE CULTIVATOR another year, as *no journal of its kind has ever had*—to introduce our *Register* to the field which it is purposed to fill,—that of THE AMERICAN FARMER'S ANNUAL, and to make as many as possible acquainted with its value,—*we will send the* REGISTER *and* CULTIVATOR *both for* FIFTY

CENTS, *where our agents do not now succeed in getting a full club of twenty, but send* AT LEAST TEN. This we do, not as making a change in our terms, but to encourage to exertion those who have given up canvassing in despair of not making out a full club of twenty, and depending upon their kind assistance another year to more than double the lists of the present, and thus reimburse us for the very inconsiderable profit which the vast amount of reading given for so little money, now returns us.

The Illustrated Annual Register of Rural Affairs.

We publish in another column, as many of the multitude of commendatory notices which the REGISTER has received, as we can make room for at present,—showing that we do not overrate its beauty and value to the farmer. All unite in saying that "EVERY FARMER SHOULD POSSESS IT" at TWENTY-FIVE CENTS a copy.—Is it not worth some trouble to procure it as a present?

For a Weekly Rural and Family Journal,

We take occasion here to mention the COUNTRY GENTLEMAN, as unequalled by any similar work, and well worthy of the attention of those who are looking about for such a publication. We have too often published extracts from the very flattering notices it has elicited from the press, as well as from the renewed commendations of its subscribers, to make repetition necessary. We shall be happy to furnish specimens. A few sets for the past year are also now for sale either in numbers or bound.

The Bound Volumes of The Cultivator,

Since the commencement of its Third Series in 1853, ought to be in the hands of every subscriber. Price — bound in superior style, and post paid to any part of the country, $1 each—unbound, or stitched in paper covers, Fifty Cents, at which price we cannot afford to pay the postage. We wish to remind agents, also, that money remitted for these counts with advance subscriptions in competition for our Premiums. We are often met with inquiries for some work on *practical Agriculture generally*, but we know of nothing so well adapted to the Farmer's wants, nor containing so much at a small price,—at once so perfect and so cheap a Text Book of every Farm and Garden operation, as the back and present volumes of THE CULTIVATOR,—for it contains the experience of the best farmers, as well as the results obtained by the best minds devoted to their interests.

We desire to repeat the acknowledgment of our obligations to CORRESPONDENTS, and to return them our especial thanks. We hope they will continue to contribute to our columns any thing they can to add interest and value to them. And to those who have never yet written for publication, we extend our cordial invitation to make an exception to their usual practice in our favor. Many do not like to impart their experience and relate their experiments, unasked, for fear of intrusion. They will please consider this an especial request to lay before the public *whatever they know*,—not to hide the results of their long labors in the dark, but to give them to the world. It may not perhaps be out of place to suggest to correspondents for *all* the departments of our paper, that the *truth, narrated as simply as possible*, will nearly always find attentive readers.

Register of Rural Affairs.

We copy, from the various notices by the public journals of this work, the following:

"This, instead of being an "Almanac," is a miniature encyclopedia of rural affairs. It contains a vast amount of matter, selected and prepared with good judgment, and arranged and illustrated with excellent taste. JOHN J. THOMAS has the credit of its preparation; and this is a guarantee of its value. Every farmer and cottager should have it: the price will place it within the reach of the humblest means and the most rigid economy.—*The Horticulturist.*"

"*Multum in Parvo.* The gist of an encyclopædia! Useful to all men and women, but particularly adapted to agriculturists, horticulturists, gardeners, etc. A copy should be placed in the hands of every farmer."—*Phrenological Journal.*

"This is the neatest and by far the most useful almanac we have seen To the Farmer and the gardener it will be particularly serviceable."—*Spirit of the Times.*

"The 'Register of Rural Affairs,' by Luther Tucker, of Albany, contains a number of conveinent plans for barns, sheds, piggeries, poultry houses, &c. It is a capital thing and should be in the hands of every farmer."—*Granite Farmer.*

"This Volume for the year 1855, affords in our judgment, more valuable information upon subjects of interest to Farmers and Gardeners than any that has ever before been presented to the Public."—*Hudson Gazette.*

"This is an elegant little annual just published, and is one of the finest specimens of the typographical art that we have examined for many days. Its abundant illustrations are of that class most calculated to interest the farmer; and in contents it affords the most invaluable information. This number is the first of a series to be issued annually, and no one should be without so excellent an almanac.'—*Keeseville Republican.*

"This is a little volume that every Farmer in the United States ought to have."—*Jersey Blue.*

"The ILLUSTRATED ANNUAL REGISTER, and Cultivator Almanac, is the best thing of its kind we have seen.—Besides all the usual calculations and statistics of an almanac, it gives a great amount of information valuable to those interested in rural affairs, illustrated by 120 fine wood cuts or cottages, farm houses, cattle, farming implements, &c."—*Newark Daily Advertiser.*

"It contains, besides an almanac, a great variety of interesting matter, pertaining to rural affairs, with an abundance of well executed cuts and illustrations. Every Farmer, and each one of his sons and daughters, to say nothing of his wife, should own one of these as his or her especial property; for all will find some valuable hints in it."—*Middletown News.*

CULTIVATION OF ONIONS.—I have a piece of low land meadow (black muck) from which I have taken the bogs, and which I have cultivated by raising upon it two successive crops, one of corn and one of buckwheat, I now wish to raise upon it a crop of onions. Will you or some of your subscribers give me a little information in regard to it,—as to how the soil should be prepared—what is the best manure to use—at what time they should be planted, and how cultivated, and which kind of onions yield the best. M. R. LUTTAN.
Franklin Furnace, N. J.

Hardiness of the Osage Plant.

The opinion has been for some years gaining ground that the Osage Orange will prove sufficiently hardy for hedges, except for the extreme northern portions of the Union. There are however not a few who are still in doubts, not having had a sufficient opportunity for learning all the facts of the case. One principal reason for these doubts is the fact that the limited experiments that have been made were performed under the most adverse circumstances. A single plant, for instance, is procured and planted in the richest soil, because it is a rarity. The high cultivation it receives induces a large, vigorous, and succulent growth, preventing a proper ripening of the wood in autumn, and as an inevitable consequence, subjecting it to destruction by winter frost. We have recently had occasion to observe the difference in result between such treatment as this, and the reverse, which strongly exhibits the influence of growth in hardiness. A portion of a hedge grows in a low place, where the peach crop is killed on an average in half the seasons; but the soil on which it stands is a dry and rather sterile gravel, and as no cultivation has been given it, its growth being retarded by weeds and grass has been not more than two feet in a single season. We could not discover that in any case more than *two inches* of the tips of this growth had been destroyed by the past winter, which all will recollect was remarkable for its severity and unfavorable effects. On a hill forty feet higher, where the peach crop escapes more than three-fourths of the seasons, a few plants were growing in a very deep and rich soil, and their growth being assisted by good cultivation, was some seven feet annually. About three-fourths of each shoot, and in some cases nine-tenths had been winter killed—the dead branches being often *five or six feet* long. So much for the difference between ripened and unripened wood, or slow and rapid growth.

Now, we would not have any one infer from this that we recommend a poor soil and neglected cultivation for hedges. On the contrary it is of the greatest importance. A strong growth must be imparted to the young plants at the outset, in order that they may become firmly rooted, which will enable them to pass through the first winter far more safely and securely than if feebly fixed in the soil, even if the part above ground should have happened to be killed down. This killing down would in fact be of no detriment at all, for no good hedge can be formed unless shorn down when young, to promote a thick growth at the bottom, which would be thicker and better from a strong root than a feeble one. As the hedge advances in height, less of it will be killed back, and in no case no more than should be sheared off for its proper growth. A full formed hedge, on account of its denseness, will protect itself, at the same time that its moderate degree of thriftiness will cause a thorough ripening of the wood. All these causes operating together, render the Osage hedge amply sufficient to endure the hardest winters in most localities in the northern States, especially wherever the peach crop commonly succeeds, and we are inclined to think that when once established, it may answer the purpose out of frosty valleys, even in the extreme northern parts of the country.

Farm Book-Keeping.

In almost every other business, regular accounts are deemed necessary to the proper conducting of its affairs. The manufacturer might get along in the same guess-work way as farmers usually do, but at what rate he was making profits or losses he could not satisfy himself. A similar satisfaction in the farmer's business is one of the reasons why he should keep regular accounts with his crops and field, as much as the merchant and manufacturer do in their departments of business. Without accurate accounts no farmer can tell, save by a guess-work which may be very wide of the reality, what crops, or what fields, or what system of management are paying the best or yielding the most nett profits. One of our British contemporaries has lately been directing the attention of its readers to the importance of farm book-keeping. It asks the question, Why are agriculturists an exception to others in the details of book-keeping? and in reply observes that there is no more essential branch of a farmer's education than that of being taught book-keeping, and that not only as to the every-day mercantile transactions of buying and selling, but also as to the noting the amount of produce of different fields, or the results of different systems of management, manuring, &c. It is essential more especially, to obtaining all the knowledge possible from any *experiment*, that every expenditure made on account of the crop, together with interest of land, should be noted down on one side, while on the other is put down every particle of produce of any value which the field or crop produced. By strict attention to details, the writer of the article referred to says, "his experience as a cultivator would prove the most formidable foe to prejudices which militate against his interest,—prejudices and errors in practice being almost invariably fortified from *rough guesses*, the necessary result of the absence of regular details; and this at least is one reason for the backwardness of agriculture."

In order to render farm accounts clear and accurate, one of the first things to be done is to make a plan or map of the farm, with the size of the fields marked upon it, &c. A field or crop may then have a folio to itself and all labor, manure, seed, &c., debited to it on one side, and all that it produces credited to it on the other. In Mayhew's Book-Keeping, published by Burgess, New-York, and sold at 37½ cents, may be found some forms and directions which greatly aid any one who intends to keep accounts in a more accurate manner than farmers usually do. In addition to the pecuniary advantage which would result from knowing what kinds of crops or modes of management prove to be the most profitable, there would be a *satisfaction* in being able to keep accurate accounts and in *knowing* instead of *guessing* as to profits, which would be enough to compensate any farmer for his trouble.

How to Enrich a Garden.

MESSRS. EDITORS.—A few years ago I had occasion to occupy a new garden. It had been worn by continual cropping without manuring, till it would not produce half of a crop of any thing. I had no manures to put upon it. I could have bought open barn-yard manures that had been washed and bleached through the year till most of the salts, and all of the *urine* was gone, but I thought it would not pay well. Nor could I any better afford to cultivate a garden to the halves. There was a half acre in the garden. I planted about one third of it to the white sugar beet. The remainder to corn, potatoes, peas, beans, squashes, melons, cabbages, tomatoes, onions, &c., &c. There was one thing that I could do. I had a family of five, three adults and two children, one an infant. I placed a half hogshead, convenient for receiving all the dirty slop of the family including the urine of the chambers. This was filled about once a day through the week and two or three times on Mondays. My method of applying it was this, at evening I began at one end of the garden, and with a pail and dipper, I threw it upon the hills and beds of every thing planted, till the tub was emptied. The second evening, I began where I left off the first and continued on till the tub was again emptied. So I continued till I had gone over the whole garden. I continued to repeat the same process through the entire season, or until the garden had become so matured as to need no more food. The first time going through the garden, as the seeds were not up, I used a large watering pot with a coarse nose. The second time through, I used the pail and dipper, and applied the liquid around the young plant. As the plants became large and nearly covered the ground I applied the liquid to the ground wherever it was naked.

And now for the result. I had a neighbor, Dr. C, a competitor in the gardening line that summer. His garden joined mine, the same size, and the same quality of soil. He had plenty of open barn-yard mannre and plenty of time to work his garden. He often boasted of having had the best garden in the town, and thought he should still have the best, notwithstanding mine. But no sooner than the gardens were both well up, the Dr. began to show signs of suspicion that he should be beat. About the first of July he came into my garden one morning, and says, "I have come to inquire into the secret of your power over the vegetable kingdom. The rapid growth of your garden is a great mystery to me. Your garden was plowed but once, mine twice, and dragged well. Yours was run down and had no manure, mine was in better order, and besides had plenty of manure. Mine also has had a little better attention than yours, and now the first of July, yours is certainly thirty if not fifty per cent ahead of mine. Tell me what you have done to it." "Well Doctor, come with me into my woodhouse, said I. There, that tub, with the help of my good wife, contains all the secret there is about it. I have been feeding my garden just as you do your pigs." "Well, now I see what you have been doing all summer. I supposed you were watering your garden all summer. and I wondered why you should be doing that when there has been a great plenty of rain. Now I see the mystery."

That garden Messrs. Editors, had the reputation of being the most thrifty and the most productive of any garden in the county. That was my first experiment with the waste water of the family. And as that was applied to a half acre of worn out land for only a part of four months in the year, I came to the conclusion that had the whole been judiciously applied one entire year, it would have been amply sufficient to keep in a high productive order, two acres. But, in this estimate, I have not included the excrement from the privy. My opinion was then formed and has been confirmed by later experiments, that the manure from the family, would be amply sufficient to enrich as many acres for all the purposes of agriculture, as there are members in the family. And this too, exclusive of absorbants to be used. But by the judicious use of absorbants, the amount could be easily doubled or quadrupled even. And this would be the true way of saving and using the liquid. With the expense of one half ton of guano, in *permanent fixings*, any farmer could make from his house, one ton a year through several generations. It will *certainly* pay. J. L. EDGERTON. *Georgia, Vt.*

Growing the Locust—Queries.

MESSRS. EDITORS—I wish to inquire through your columns, of such as can inform me, in relation to the growing of Locust for timber.

1st. What kind is preferable, for farm timber and fuel?

2d. Where, and how, can the seed be obtained this winter?

3d. The proper time and mode of planting and cultivation?

4th. The liabilities to which they are exposed, on open prairie locations, to breakage from winds, injury from frost, insects, borers, &c.?

5th. And lastly, the general advantages and objections, to growing locust, or other quick growing timber, on westetn Prairie farms—what, if anything, is preferable to the Locust, being particular to state whether white, black or yellow locust, giving its botanical and true name, if possible.

Any one, who actually has had practical experience in the foregoing business, and knows *really* something about it, will confer an important favor on me, and many other western Prairie farmers, by replying as early as possible, so that the information may be made valuable, the coming spring.

I repeat as before, I don't want any mere idle theorizing, of which the agricultural world is already too full, but practical information from those who have or are actually growing such timber. There must be plenty of such men, in central or southern Illinois.

D. P. POWERS.

Madison, Wis., Dec. 15, 1854.

The Position of Drains.

Frequent inquiries are made as to the proper position for drains, whether directly down the slope by the shortest way, or in an oblique or side direction. In the first named instance, the drainage is supposed to be most effectual, from the rapid descent of the water down the slope; but others prefer the second mode, believing the drains cut off more completely the descending currents of water in the soil, so that it cannot injure any below. Both of these plans having their advocates, we propose to examine the benefits of each, and determine which is really the best.

In order to make the matter perfectly plain, we furnish the annexed figure, (Fig. 1.) showing the position

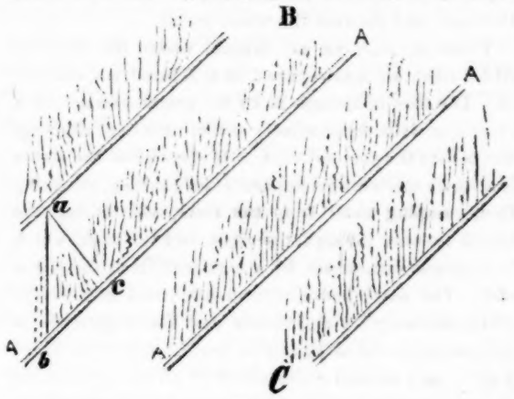


Fig. 1.

of the oblique drains, and the distance the water in the soil must travel before it reaches the ditches; A A A A being the drains, and the dotted lines the channels of moisture, as they leach downward through the soil. The shortest descent down the sloping surface is from B to C, the drains being placed at an oblique angle of about forty-five degrees. We shall suppose these drains to be two rods apart. Very little, obviously, of the water in the soil will pass into the one next *above* it, but will nearly all flow into the one below. Then, as from *a* to c is two rods or 33 feet, the distance from *a*

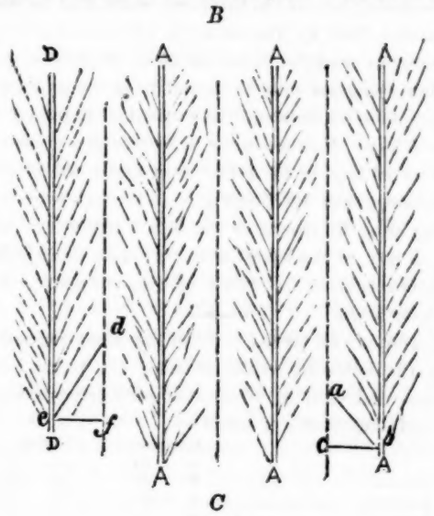


Fig. 2.

to *b* will be 47 feet, or nearly *three* rods, which is the furthest distance for the water of the soil to soak into the ditches.

Let us now examine the other mode of laying the channels, namely, directly down hill by the shortest course.

B C, Fig. 2, is the direction of the descent, down which the drains are laid two rods asunder. These receive the water equally on both sides, the effect of each drain extending half way, or to the straight dotted lines. The direct distance is consequently but one rod as shown by *c b*; but as the moisture must flow obliquely to reach them, the distance becomes greater according to the degree of obliquity. If this obliquity is forty-five degrees (or half way between perpendicular and horizontal) as shown by the line *a b*, then the distance will be 23 feet, or only *one half* that required in the former or oblique mode of ditching. Even if the moisture should descend so much nearer to a parallel with the ditches, as to pass sideways only half its own distance of descent, (as shown by D D,) *d e* being this distance; even in this case *d e* would be only about 37 feet, or a little over two rods, being *ten feet* less than in the former mode.

It may therefore be laid down as a safe rule, that the perpendicular drains would be as efficient at two rods apart, as the oblique ones at two thirds of this distance.

But there are other influences still more in favor of the perpendicular mode. When the drains are oblique, the water does not find so ready a passage down them, and consequently if tile is used they must be of larger size. The passage through them being somewhat obstructed by a want of descent, the water after it has

Fig. 3.

filled them, tends to leak out on the lower side, (Fig. 3,) and if the subsoil is pervious, thus to add to the amount of water in the soil below, instead of draining it. But when it once enters the *perpendicular* drains, it never passes back into the soil, but escapes by the channel thus made for it.

The question is sometimes asked, why the water will flow *sidewise* for reaching the perpendicular drains, and if it will find its way at all into them? The answer is water always tends (unless an obstruction is presented) to pass from a soil filled with it, to one that is dry or empty, in the same way that it will run out on all sides of a basket; and as soon as that portion nearest the ditch becomes drained, more remote portions flow in to fill the vacancy, till all escapes.

The preceding remarks apply to all ordinary instances, where a system of underdraining at regular interprove to be exceptions. For example, a porous or vals is adopted. There are a few rare cases which gravelly hill, or top soil A, Fig. 4, may rest upon a

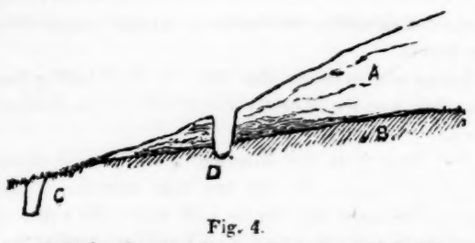


Fig. 4.

water tight hard-pan subsoil; the rains which fall upon it will immediately sink down, and leave all that part of the surface dry; but running over the surface of the hard-pan, it will break out at *C*, and form a marsh or wet place at that point only. A drain cut obliquely or nearly horizontally at D, just at such a place that its bottom may be in the impervious hard-pan, will *prevent* the water reaching *C*, and prove an effectual remedy. But even these oblique drains must in most cases be only side branches to the main perpendicular drains, which should be placed at frequent intervals for the ready escape of the water.

The Model Farm.

There are some farms carried on in a style of neatness and expense so far exceeding the means or the tas of the generality of farmers, that few can be expected to come up to them, or even copy after them with any great degree of close approximation. Still there is a pleasure in personally inspecting, or in hearing or reading a description of a farm, carried on in a superior style; and though a few only can imitate, the desire of improvement will be kindled afresh in the minds of a great many, and not a few may get a hint which they will carry into operation in some one department of their buildings or business. For the reasons just named, we think it, not only far from useless, but likely to produce here and there some very desirable results, to have occasionally a presentation made to the agricultural community, of some farm or branch of their business which is carried on in a very superior style.

Such we find in Mr. TELFER'S farm, near Ayr, in Scotland. At the last meeting of the Royal Agricultural Improvement Society of Ireland, Mr. HAMILTON gave his experience of a late tour in Scotland, in the course of which he visited some of the more celebrated agriculturists of that country. Among others he visited Cunning Park, the farm of Mr. Telfer, close to the town of Ayr. He informs us that this celebrated dairy farm contains only 40 Scotch acres, or about 48 English acres, flat and level, and consisting of poor sandy soil, worth very little in its natural state. Sand, however, with a mixture of vegetable matter, makes very good garden soil, and why not good field soil, being an appropriate medium for supplying water and liquid manure to the roots of plants. Pipes are laid for carrying liquid manure over a large portion of the farm, with a hydrant to about every six acres. The cow-house contains 48 cows in a double row, two cows to each stall. The floor is entirely of white flag stones, kept as clean as the floor of a kitchen, and indeed perfect order and cleanliness pervade the whole establishment. The drain behind the cattle is fitted with a perforated iron plate which lets the liquid pass off at once into the large tank, while the solid manure is carried off by shovel into the same deposit. No litter is used, but the fore part of the stalls is covered with thick cocoa-nut mats, which cost 10s. ($2.50) each. As some of these mats had been down three years, and yet seemed but little worse for wear, the expense of this substitute for litter must be very trifling. There are many windows both in the sides and roof, which can be thrown open for ventilation, or closed when flies are troublesome, having blinds of cocoa-nut fibre so ingeniously arranged that pulling a slight cord closes them all, and darkens the whole stable.

There is, also, an air channel under the floor by which fresh air is introduced, as it is usually in churches. The food is brought in by the center passage, in a large box with three wheels, which runs over the flag-stones with the greatest ease. At one end of the stable is a steam engine with apparatus for chaffing, steaming food, pumping water from the river, and forcing the liquid manure through the pipes, and the tank, which is open and surrounded by a high wall, is at the other end. The dairy-house is connected, and has everything necessary for cleanliness and the regulation of temperature, and a beauty of perfect fitness in every part. As a natural consequence of all this, it is stated that Mr. Telfer gets the highest price for his fresh butter from a London dealer, who supplies the nobility and gentry of the West End of that city. This is sufficient evidence of the superiority of his butter.

The stock kept on the farm is 48 cows, and 2 horses. The cows get about 88 lbs. of fresh cut grass *per diem*, and 30 lbs. cabbage, in the summer, with one feed a day of 6 lbs. of chaffed hay, and 2 lbs. of oil-cake, made into flour and steamed with the chaff.

In winter, grated mangel wurzels, fresh and not fermented, are substituted for the fresh cut grass.

Mr. Hamilton, who reported the observations he made during his visit to this farm, states that he thinks it proved, that by the constant application of liquid manure, as much, at least, as 25 or 30 tons of green Italian rye-grass may be raised from an English or statute acre, which would be equivalent to from 7 to 9 tons of hay. Now assuming 8¾ tons of rye-grass = to 2½ tons of hay, to be a fair crop under ordinary circumstances, then Mr. Telfer gets an increase over an ordinary crop, by means of his liquid manuring, of 4½ tons of hay, at the lowest estimate—*a no inconsiderable remuneration for extra efforts*, or *farming in a superior style.*

CARCASE AND OFFAL.—From the same journal we copy the following table, showing the proportion of carcase and offal in 10 stone of each respectively, of five different breeds of cattle:—

	Carcase.		Offal.	
	st.	*lbs.*	*st.*	*lbs.*
Devon,	6	13	2	4½
Durham,	6	13½	2	1½
Hereford,	5	12½	3	2
Highland,	5	6	4	4½
Cross,	4	7½	4	4½

First Year's Experiences in Farming—No. 1.

Reasons for Going to Farming—My Farm—its late Occupants—their System—Manure the Indispensable Requisite—Arrangements of Barn-Yard and Buildings for Making and Keeping this "wealth of the farmer."

It is no uncommon thing, now-a-days, for persons educated for other professions and pursuits, to enter upon the business of farming. Those who possess an instinctive love of the Country, and its pure pleasures; such as prefer the *quiet* and steadiness of rural life, to the excitements and ever changing circumstances of professional and commercial life; some who seek restoration of impaired health; and not a few who have an eye to "remunerating profits," are to be found, here and there throughout the country, forsaking their former occupations and engaging in the time-honored calling of agriculturists.

Yielding to some of these motives (not excepting the last,) I have relinquished other pursuits, and now find myself a *practical farmer*, of a year's standing.

The operations of a *year* afford many useful lessons. The recorded experience of others, has been my principal guide, and I have found those facts established by actual and repeated trials, far more reliable than any theoretical *facts*. If therefore your readers are able to deduce any valuable lesson, receive any useful suggestion, derive any encouragement, or find any stimulant to improvement, in my limited *experience* I deem it only a duty to communicate.

First then my farm. It is located about 2 miles from the center of the city of Utica, is composed of 100 acres tillable land, one third of which are the flat lands of the Mohawk Valley, and the remaining two thirds up-land, gently sloping to the northeast. The sub-soil of the latter portion is a stiff sandy clay and is over laid with about six inches of fine dark loam. It is considered a good farm, take it all in all. The products of the farm have not been such, however, as to encourage the former owners, who were two brothers.

Its late occupants. It was purchased by a relative of theirs when a forest, for ten shillings per acre, and although devised to them at his death, free of incumbrance, it did not produce enough under their joint management and culture, to defray their expenses, and when finally disposed of was subject to a considerable incumbrance. This was not owing to their extravagance or excesses of any kind, but to their system of management.

Their system. They would not adopt an evident improvement because their fathers "did not do so!" They would not plow below the coating of loam that covered the farm, because their fathers never did, and it would *poison* the land. They would never plant a tree, because "the old orchard was good enough." They would have no Durhams or Devons, but delighted in a stock of cattle that had been "raised on the farm!" They did not believe in carting manure, but often gave it away to any one who would get it out of their yard. In fact, manure was treated as an absolute *nuisance*, and they consequently sought every way to rid themselves of it. They planted and sowed the same fields, with the same crops, year after year without change. They believed "rotation of crops," a fancy of the book-farmers. By this system (if it may be called a *system*) the farm was "run down," and did not produce well. It was literally *skinned*, as the owners ought to have been. Living as they did in this day of agricultural light and skill, in this fruitful county, on a good farm near a fair market, needing no assistance to carry on their whole business, and men of fair education and intelligence on other subjects, their farming was and is to them, forever, a shame and a disgrace.

Manure. My attention was first directed to this, the most indispensable requisite in good farming, and the means of manufacturing and preserving it. I removed the barns from a wet inconvenient and much exposed situation, to a better protected and more convenient place, and arranged the sheds and out-buildings to form a barn-yard, enclosed on all sides by buildings, except a small portion towards the south. It cost two or three days work of man and team, to shape the yard—plowing and scraping from the center to the sides, until there was a gradual inclination of all sides to the center. I then picked up and drew from the fields, small stone, and paved the center, laying the stone in water-lime. In this manner, covered about one half the area of the yard, which made a water-tight, capacious and convenient *dish*, in which to keep all the yard manure. The two old barns were made alike and in the oldest style, with a cow stable on one end, a scaffold over it, and a bay on the opposite end, with a barn-floor in the middle.

I placed these barns together in their new position, joining the ends where the cow stables were. This brought the stables together, and when occupied, the cows stand facing from each other, and looking into the barn floor of each barn. Between and behind the two rows of cows, I made a gutter, leading all the liquid manure to the back of the barns. Here I excavated a large reservoir and enclosed it with a stone wall (of stones gathered from the fields) laid in water-lime and paved in the same manner as the yard. This is large enough to contain all the droppings of the cows as well as the liquid manure, and into this stercorary, it is all deposited with very little trouble. Here also I deposit old turf and muck. This is well protected by a lean-to shed, in rear of the barns. A large door in this shed affords a passage for the manure wagon, which is backed down upon a portion of the floor of the reservoir, which gradually inclines from the outside entrance to the bottom, and can be easily loaded, whatever the quantity of manure in the reservoir.

My barn-yard has no scattering dung heaps, but a large pile in the center, which is constantly increased by adding muck and all vegetable substances within my reach, and to which the manure of the horse stable and piggery is regularly carried upon the wheelbarrow. Besides receiving and retaining the wash of the yard,

the liquids of the horse-stable and piggery are also drained into this *dish*.

To the manure of the hen-house, sufficient swamp muck is frequently added to prevent the escape of ammonia and to keep the house of a savory smell. The quantity of domestic guano thus made in a year, has been a very considerable item.

These are my plans for making and keeping the "wealth of the farmer." I have tried them, proved them, and can testify that they work well. CIVIS. *Utica, Dec.*, 1854.

P. S. I read your "*Country Gentleman*," with great interest and profit. I cannot estimate the value it has been to me in my attempts at farming. Its hints from correspondents, its practical articles of your editorial corps, and its general matter, are all admirably adapted to improve and encourage us.

The Greatest Enemy of Fruit Culture.

"And what is this greatest enemy?" inquires every one. "Is it the caterpillar—the canker worm—the borer—the grub—the bark-louse—the black knot—the fire blight—the yellows - the curculio?" The *caterpillar* sometimes strips whole orchards of their leaves, and for that year puts an end to the crop; but generally speaking it is not a very bad enemy, as the incipient nests are easily collected and destroyed, and the more advanced insects are instantly killed by the slightest touch of a swab dipped in coal-tar. The fire-blight is often very destructive to the pear; but when not virulent, it may be checked by prompt and vigilant free amputation; in many places it is only an occasional visitant, and in some regions of country, celebrated for large crops, (Boston for example) it has never been seen. The *borer* may be excluded from the apple by a coating on the trunk and roots in spring, of a soft mixture of tobacco water, soft soap, and flour sulphur. The *grub* in the peach is readily dug out with the point of a knife; and the yellows, although incurable when once attacking a tree, may be excluded from an orchard by planting only healthy stones and healthy trees, on a strong, rich, well cultivated soil. The *bark-louse*, in its worst appearances, is confined chiefly to one portion of country, and may, by industry, be scraped and washed off—the black knot, may in most cases be kept from the plum and morello cherry by vigilance in cutting off, if only *begun in time*. Even the *curculio*,—that prince of destroyers, causing as it does, a loss to the fruit crop annually of some millions of dollars in the aggregate, may be greatly checked in many instances, and sometimes effectually routed, by *plenty* of pigs, poultry, and other of the smaller animals,—assisted when necessary, by the daily knockings on the spread sheet. Nearly all these depredators or enemies are, besides, confined mainly to certain fruits only, as for example, the yellows and grub to the peach, the fire blight to the pear, the borer to the apple and quince, the black-knot to the plum—and the curculio in a great measure to smooth stone fruit. They do not each extend through the whole list of species, and this fact renders it much easier to meet and successfully oppose them.

But there is another enemy, greater by far than any one of these, if not than the whole list put together. This is a certain animal which the ancient philosopher singularly described as "a two-legged animal without feathers," the great English epicure Dr. Johnson, as "the only animal that cooks its victuals," and zoologists under the scientific name *Homo sapiens*. MAN (under which general head *boys* also are included,) is the greatest enemy that fruit trees have to contend with. The first thing he usually does, when he procures young trees, which perhaps have been already badly chopped and mutilated at the roots, by some other individual of his species, is to crowd them into a small hole in a hard soil, which mixed with sods is thrown in among the roots, and stamped hard with the foot. They are not unfrequently choked and killed the first year by sowing grain crops about them—we have seen hundreds of trees in a single orchard smoothered to death in a season by being thrust into a thick clover meadow the first year, and where the fourth that survived did not grow a single inch. If an *insect* had done this great mischief, a general shout of war would be heard against it; but because it is committed by this same animal, *Homo sapiens*,—*sagacious man*,—it is ascribed merely to bad luck and forgotten.

But if the trees happen to survive this severe ordeal, an assault is made upon them in another shape. He "trims" them up without regard to form but a misshapen one; he tears off their bark with his whippletree in plowing, or breaks them down in his care to avoid injuring an adjacent hill of corn or potatoes, that has cost him just one-hundredth part of the tree; or he carelessly turns in cattle, which avoid the error of trimming *up*, by browsing them *down* to the ground. If they escape all these things, then very often violent amputations are made of large limbs, without judgment or meaning, and canker or decay finish the work with them.

Evil from this animal, however, comes in another form, not unfrequently more formidable than any of these. This is the depredation of *boys* (in which term we include all pilferers under fifty years,) who in most places in our free country, effectually deprive the *careful* cultivator of the finest part of his labor and watchfulness for years. What beautiful laws our consistent government enacts! If a man defrauds his neighbor by passing on him a counterfeit dollar bill, years in the state prison is his punishment; but if he steals the choice reward of long seasons of skill and care from the fruit garden, no one thinks even of three days in the county jail, and the injured owner, if he makes any complaint, is reported through the neighborhood as illiberal and stingy, and even some of our country papers have attempted to raise this heartless hue and cry. Let it no longer be denied that THE DOLLAR is the Alpha and Omega of the American people, when such inflictions are visited upon those who infringe its privileges, while other injuries, which mo-

ney could not replace for the owner, are passed lightly over, amid jibes and jokes on the unfortunate fruit culturist, who lost his most delicious specimens.

Nothing in the whole circle of rural improvement can do more towards establishing virtuous habits in the community, and inducing a love of home and domestic life, and a distaste for dissipation, than the successful culture of the full circle of the finest fruits, so that none need go abroad for pleasures, but that every one may sit under his own vine and fruit tree. Yet we have met with many owners of a lot of land, and we have no doubt there are thousands all through the country, who are wholly deterred from setting out choice fruit trees, because they know that thieves, or "*boys*" as they are commonly termed, will have the *best*, if not the whole of the crop. What we most want is a *correct public sentiment* on this subject—and now that the number of fruit raisers is becoming larger annually, will not our horticultural papers take hold of the subject and do their duty, by frequently speaking out and arousing public attention to this widely prevalent evil? Will not "*The Horticulturist*" take the lead? Will not all our periodicals which are so largely enlisted in rural improvement, join in the work, as one of more importance than all canker-worm-troughs, fire-blight-cures, and curculio-remedies put together?

We as a people have been for several years planting out fruit trees by the million—but the great majority of them, we are confident, if not four-fifths, have been destroyed or stunted to worthlessness, by bad treatment in mal-transplanting, mutilated pruning, and the absence of all good culture—and of those who know how to manage them in the best manner, a large portion are deterred from action by the certainty of the plunderer's assaults. No wonder then, that fruit, instead of growing more abundant in market and cheaper in price, is actually becoming dearer and higher priced on an average, as the country becomes older and the population more numerous. We sincerely hope that those who have some control over public opinion, will exert their influence for a reformation.

Pulverization of the Soil.

We might select a more seasonable subject for consideration than that of the proper amelioration or pulverization of the soil we till, but it would be difficult to find one more intimately connected with the economy of agriculture or one more generally neglected. Most of our good farmers plow deep enough, but there are few who pulverize the soil sufficiently. We are urgent advocates of deep plowing, but we had rather six inches of the soil were well plowed and thoroughly worked with cultivators, harrows, rollers, &c., than have twelve inches burst up and left in a half worked, raw state. MECHI sometime since, having witnessed the working of "GIBBS' Rotary Digging Machine," enthusiastically asserted in the London *Times*, that "that old implement the plow was doomed." His sanguine expectations have not yet been realized, but the workings of this machine are such as to induce us to hope that ere long some such an implement shall be invented as will economically break up and thoroughly pulverize at one operation five or six inches of the surface soil. Such an implement would do more towards revolutionizing the present system of American agriculture than the most enthusiastic chemist ever claimed for soil analysis, or more even than MAPES claims for his Improved Superphosphate of Lime.

Dr. WELLS of Cambridge, found that the soils of the Scioto valley in Ohio, which have long been noted for their extraordinary fertility, contained a no larger proportion of the elements of plants than the comparatively sterile soils of New-England. So far as chemical composition was concerned, one soil was just as good as the other, the only difference being that the rich Scioto valley soil was composed of *finer particles* than that of Massachusetts. Now we are not to infer from this that the land of New England can be rendered as productive as that of the Scioto valley simply by good plowing and thorough working, since these could only break up the conglomerated particles of the soil and not reduce the size of the particles themselves, neither are we to anticipate that any mechanical contrivance will be discovered for grinding the soil into a fine powder; but we may safely assert that the results of Dr. WELLS, clearly indicate the direction in which we must look for any great improvement in our national agriculture.

The beneficial effects of pulverization are attributable to the increased permeability of the soil to rain and air; the oxygen, carbonic acid and ammonia of the air, have a great effect in decomposing the organic and in disintegrating the inorganic matter of the soil and rendering them available as food for plants, while it allows the rain water to act on a greater surface, and thus to dissolve out more matter from the soil. We all know that a lump of sugar is much longer in dissolving than the same amount of pulverized sugar. The principle applies in all cases. Good plowing and thorough working of the soil, therefore, loosen the soil and form a fine bed for the plants to root in; they prepare the soil in such a manner that the air, carbonic acid and ammonia can circulate freely through it,—conditions which are known to be essential to the growth of plants. The free admission of the air too, induces the liberation of carbonic acid, ammonia, &c., which in their nascent state, are known to be powerful solvents, and to have great quickening and ameliorating effects on the soil. When it is remembered that plants can take up their food only in solution, and that most soils abound in the elements of plants lying in an inert, insoluble condition, it will not be difficult to account for many of the surprising results witnessed from good tillage alone. A good plowing with the frequent use of the cultivator, harrow and roller, are frequently tantamount in effect to a liberal dressing of manure. There is this difference, however, and it must not be overlooked, the former simply renders the fertilizing matter already in the soil available, while the latter supplies the same matter from extraneous sources; and there is danger of pushing the principle of good tillage too

far, for however fertile a soil may be, the constant removal of crops, without the return of any manure, must sooner or later impoverish the soil. For our own part, however, we anticipate little danger in this direction; farmers who have enterprise and knowledge sufficient to adopt improved modes of *tillage*, are not likely to neglect the manufacture, preservation and application of manure.

We refer to the subject of the thorough pulverization of the soil at this time, principally to urge upon our readers the importance of possessing proper implements for the economical performance of this important branch of farm labor. The comparative leisure of the winter months on a farm, not only affords a good opportunity for investigating the laws of tillage, but also for getting ready implements for reducing to practice the knowledge thus obtained. We think "CROSSKILL'S Patent Clod Crusher," the best implement at present known for pulverizing the soil; but if we cannot have this implement there is no reason why every farmer should not have at least a good wooden roller. If you have not one already, kind reader, be sure you get one before spring.

Mechanics Turning Farmers.

"A few Mechanics" at Worcester, Mass., ask for advice on the subject of relinquishing their present employment, moving west, and engaging in Farming. The "hard times" have thrown them out of employment, and they have each a small amount of capital, varying from $700 to $1400. Some of them have had no experience in agriculture, and they wish to know if they can probably "get a living," and "make it pay" as well at farming, as at their city trades at two dollars a day.

It is next to impossible to give any definite advice on this subject. Some of the best farmers we ever knew, were brought up mechanics, but carrying their regular business habits into their farming, with a consciousness that they had *all to learn*, they applied energetically to the best sources of information, and soon outstripped their more conceited neighbors, who knew too much about their business to learn any thing. On the other hand, we have known perfect failures with others who had made similar attempts.

The best *general* answer we can give to all inquiries whether any particular pursuit is a good and profitable one, is, "Success does not depend on the kind of business; it depends on THE MAN." There are some mechanics, who, unaccustomed to farm labor, would exceedingly dislike its irregular drudgery, as well as its uncertain results from the variations of seasons; there are others who would soon become fascinated with all its operations, and with everything connected with rural improvement, and learning by a few years experience to turn everything to account, would make farming profitable. Our opinion is, that most of those accustomed to regular mechanical employment only, with a capital of only about one thousand dollars, would find it difficult to buy a farm with buildings, stock it with animals, furnish wagons, carts, and implements generally, and buy food until a return is made in crops. We would never advise such persons to buy *new* lands, but whether they settle west or east, to procure a place, even if quite small, already under cultivation, and with at least some buildings.

It will be some time before the *most skilful* will receive an amount equal to *two dollars* a day; and we would therefore advise all mechanics, not already well versed in the practical operations of farming, to endeavor to retain for themselves, at some wages, mechanical employment during the most leisure portion of the year—to begin in a small way, to avoid running into debt, and to *feel their way* before engaging in any considerable expenditures.

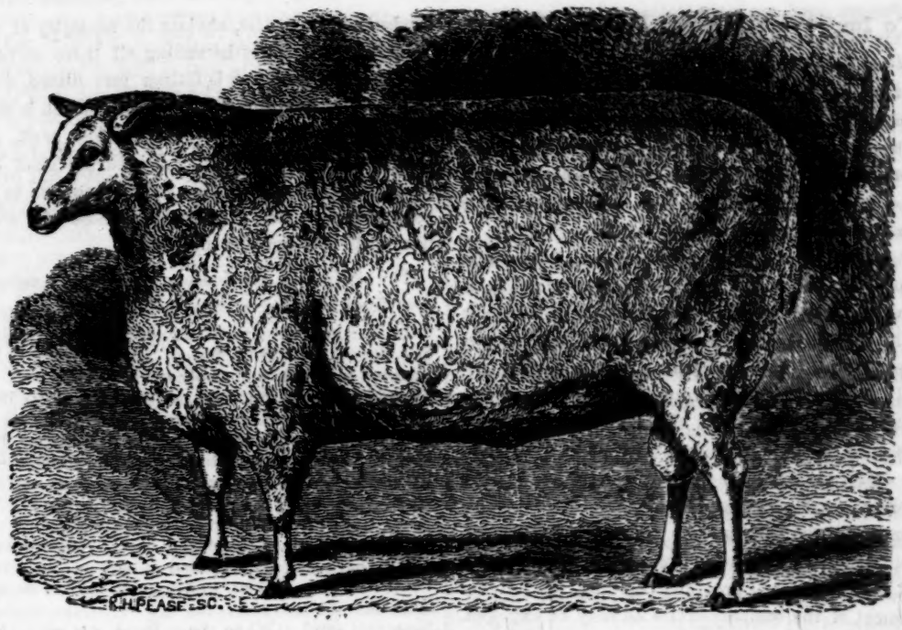
With regard to the question, "Where would be the best place to locate?" we answer, in any of the states west of New England, where the climate is not greatly dissimilar, and where there is a good fertile soil, and healthy air. In the more remote places, land is cheaper, but the advantage is nearly balanced by distance from market, and lower prices.

Keep only the Best Stock.

The opinion is gaining ground that, in the Eastern States especially, farmers can afford to keep none but the best stock. It costs in this vicinity at least $50 to keep a horse well through the year, and as much to keep a poor animal as a good one. Who that thinks at all on the subject, can fail to be convinced that it is better economy to keep a span of well formed, active and powerful horses, even should they cost $300, than a pair of long-legged, lightbodied, broken-down stagers, even could they be obtained for nothing? So it is with cows. It is not easy to estimate accurately the cost of keeping cows,—in this neighborhood it is not far from $35 per annum—but we may safely aver that little profit is made except on the best animals.

The profit of pork making except in the great corn growing states of the west, is notoriously small, and this year it has been less than usual. We will not say that much money can be made here in feeding corn, even to a good Suffolk or Berkshire pig, but if it will not pay to fatten a well-bred hog, it certainly cannot be profitable to attempt to fatten the miserable race of pigs commonly found in most barn-yards.

The same is true of sheep. The profit on sheep the past year, especially on such as are kept principally for their wool, has been quite small—some good farmers think it has been on the wrong side of the ledger. Many are rushing out of the business, selling their flocks at a great sacrifice. It would be far better policy to go carefully through the flock, and select out the comparatively worthless animals. Many flocks would in this way be reduced one-half, and by keeping them better, and using the proper means to improve the breed, much more profit would be obtained for the food consumed. It might be well, too, in many cases, to get a coarser wooled, mutton breed of sheep. But this of course depends on the locality, the price of mutton, &c. At all events, whether sheep are kept for



Leicester Ram.

The above is a portrait of a yearling ram, bred by Mr. S. BENNETT, Bedfordshire, England, to which a prize of 30 sovereigns was awarded by the Royal Ag. Society of England.

wool or mutton, the most profit will be realized from the best bred animals.

What are, and what are not, well bred animals, is a disputed point which it is not our purpose here to discuss. Could we see farmers fully realizing the well established fact, that carefully bred animals are always, in the aggregate, much more profitable than those which are chance bred, we should have higher anticipations respecting the progresss of American Agriculture.

Cure for Foot Rot.

MESSRS. EDITORS—A simple and effectual cure for the *foot rot* in sheep, consists in a mixture of 1 part oil of vitriol, and 4 parts water.

Provide a sharp jack-knife, and a small brush. The operation consists in paring the diseased hoof, so that every part that is matterated shall be exposed, and then wash it with the vitriol and water.

Years ago, when the Saxon sheep fever was raging, my flock had the disease direct from Saxony, and from its operation, no one would doubt its being genuine. Nearly two years were consumed with various remedies, which served to save the flock, but all the remedies were not effectual to make them stay cured, until a friend living with a flock-master near Boston, kindly furnished the above remedy.

I had a flock of over 200 sheep, in a hill pasture, affected with the disease. I procured help that could be relied upon to do the work well, built a small yard in the corner of the lot, sufficient to hold the sheep, and carefully examined every one, and applied the above remedy to all the diseased ones, twice in the week for three weeks. The cure was effectual, as I have not had any trouble since.

The secret of success consists in doing the work *thoroughly*. The least particle of matter left unexposed in paring the hoof, will be seed enough to perpetuate the disease. Nine flocks of sheep in my immediate neighborhood were successfully treated in the same way. ORRIN SMITH. *Middlefield, Mass., December* 25, 1854.

Grubs in the Heads of Sheep.

MESSRS. EDITORS—I notice in the *Country Gentleman*, some remarks upon the grub in the head of sheep. I will give you a little of my experience in this matter. I moved from your state seven years ago, and brought with me 8 Leicestershire sheep. They prospered well with me. They were kept in the prairie grass in spring and summer, and in fall and winter in the corn as it grew in the field. With this treatment, my sheep are fat in winter. In the seven years, I have lost ten or twelve with the grub in the head. I found it to be so, by dissecting the head; found one grub an inch long, and others of various smaller sizes. I carefully experimented upon them, and found that tobacco juice killed them in half a minute. After that I used strong tobacco juice, syringing it into the head and it cured long standing cases every time. A. K. BARRETT. *Magnolia, Wis.*

MR. JEWETT, of Weybridge so well known as the importer of blood Stock, has just made one of the largest sales ever made in the county. He has sold to Charles Newman, Esq., of Brooklyn, N. Y., French Merino Sheep to the value of $15,000. This, added to the former sales of MR. JEWETT this year, amounts to $28,400! a good business for one season.—*Vt. Patriot.*

"To Improve the Mind and the Soil."

This has been the motto and the object of this publication from its commencement. Is there any connection between them, or are they entirely distinct and separate objects? We think there is a close connection between the two, which it might benefit many to think of, and to allow it some more influence on their plans and proceedings.

The connection between improvement of the mind and improvement of the soil, or of the condition of those who cultivate it, which is of most importance, is that which consists in the increased fitness for a successful prosecution of his employment, which springs necessarily from sharpening, strengthening and cultivating the mental faculties of the farmer. It seems a truth almost self-evident—one at least which receives almost daily confirmation—that whatever calls forth the powers of the mind into vigorous and well-regulated exercise fits that person, in a greater or less degree, for more accurate and keen observation and for more correct and logical and practical thinking, in whatever department of the business of life he may be engaged.

The young men whose minds have been most active at school or in home studies, are usually found to be the most intelligent, sagacious and successful, in whatever they may afterwards employ themselves. From a torpid and inactive mind, when do we ever obtain any valuable observations, discoveries or reflections? The same general truth holds good as to the cultivators of the soil. It is from those whom exercise and discipline of the mind have made intelligent, inquiring, sagacious, and logical, that we receive reliable observations, and well founded arguments, opinions and inferences. It is from such that we receive suggestions and proposals of improved methods of culture. While the torpid and inactive mind contents itself to walk in the steps of its ancestors and to do as the world has done for ages, the educated and 'improved' mind is quick to detect the faults and imperfections which belong to many old customs and practices, and to devise new and better methods of attaining the ends of agricultural labor.

Durability o Unburnt Brick, &c.

A correspondent at Tipton, Iowa, inquires for information respecting the durability of buildings made of unburnt brick—and the kind of plastering for the outside—whether the walls need be hollow—and the cost. He also wishes to know how to make cement roof, and its cost.

A well made unburnt brick house, on a firm, dry, stone foundation, with a complete covering of *cement*, will last for ages. Uncemented, the weather gradually wears it away; and water leaking from the roof, or coming up from the earth below, will soon destroy it.

The price is usually regarded as much less than burned brick, as the bricks are more rapidly made, and burning is saved; and the bricks being much larger and as thick as the whole walls, are laid more cheaply and rapidly. The thickness of the brick, and their non-conducting properties, obviate the necessity of making them *hollow*. Notwithstanding all these advantages, this mode of building is falling into disuse, doubtless for some substantial reasons, among which is probably the difficulty of having every part *done well*, and especially the great difficulty of securing good cement, so essential to success. We should however be glad to have the views and experience of those who are familiar with this mode of building.

The following particulars for making cement, we copy from Downing's Cottage Residences.

In making the cement, choose a hydraulic lime that has been thoroughly tested, and is known to be well adapted to resist the weather, *in the air* as well as under water, and let it be perfectly fresh, as it will be nearly worthless if it has been long prepared, unless it has been kept in entirely air-tight vessels. The very best and purest lime should also be selected,—of the greatest tenacity in mortar, and such as will slaeken equally throughout. Especial pains should also be aken to procure sharp angular sand, which, if not perfectly clean, must be freed from any admixture oi earthy particles, by repeated washings. Let the lime be thoroughly slaked, and a good mortar be made in sufficient quantity for the whole of the work, of the lime and sand. When the masons are ready for plastering, open one of the casks of cement, and mix the latter in the proportion of one third to two thirds of the mortar, making a hod of the mixture at a time, as it would otherwise partially set before it could be used. Only one coat of cement should ever be put on, as it will then form one homogenous mass with the wall. In finishing the surface, *float it off* as smoothly as possible, and mark it off in courses to resemble stone, coloring it while the cement is yet only partially dry, so that the coloring matter may set with the cement.

We do not know the best method of making composition roofs, but understand it is an art that requires much experience as well as knowledge. Can any o our correspondents give the desired information?

Singular Circumstance.

MESSRS. EDITORS--I have a strange fact to state which came under my notice in the town of Moscow this state. I observed in June last growing upon the farm of N. H. Miller, a very superior lot of clover, and was much surprised to learn the field had not been seeded for five or six years, during which time, it had been mowed twice and cropped twice with wheat.

This is something very unusual, as clover rarely does well after the second season.

Who can account for this bountiful crop of clover without seed or plaster for six years. The soil is a gravelly loam, similar to much of the soil in Monroe and Livingston counties, N. Y.

Allow me to state another little fact, which may be something new to many of your readers. While opening a pumpkin yesterday which had been carefully carried from the field to the cellar, we observed many of the seeds were sprouted, with long turning roots, and also from one seed a couple of beautiful *green* leaves. Does not this do away with the theory that light is absolutely necessary for plants to produce color. J. W. DICKINSON. *Hillsdale, Mich., Dec.* 2, 1854.

On Making and Saving Manure.

MESSRS. EDITORS—I read with a very deep interest, the communication from T. K. in the Country Gentleman of Dec. 7, on making and using manures. Not because it presented new principles or discussed new theories, for that is not what the farming public the most need just now, but because it did contain the very things they do the most need—line upon line, precept upon precept.

Farmers can never be too much nor too earnestly urged to increase their manure heap. The one great question with every farmer should be, not the price of guano, nor super-phosphate, nor poudrette, but how can I, on my own farm and with the least expense, make the most manure? One interesting feature in T. K.'s communication, is the encouragement it gives to home manufacture, the development and use of home resources.

But to the first item of advice in T. K.'s communication, I take exceptions. To every farmer that inquires, shall I go to the forests and get the leaves for my compost? I answer unhesitatingly, *touch* not a *leaf* in your *wood-lands*. The leaves are all needed there for three special purposes. To keep the ground *moist* in summer, *warm* in winter, and lastly to furnish food for the growing timber. I advise the farmer to *mulch* the wood-lands rather than remove a *single leaf*. My nearest neighbor has a valuable wood lot, a part of which lies high and so exposed, that every leaf is blown off by the autumn winds. The drouth of last summer killed all the valuable timber on that part from which the leaves were blown, while they remain uninjured on that part covered with leaves. If such wood-lands are worth saving, then it will pay to mulch them.

There is one other item of advice to which I take no exceptions, and yet I can not see the use of it. It is that which relates to the cistern and pump for the urine. I charge every farmer to save every ounce of urine, as well that from the family as from his animals, but to do it by the use of absorbents that are the most worthless for manure in their crude state, but, when used to absorb either the dirty slop from the family or the urine, are converted into the richest elements of fertility. And I am sure that if every farmer would carry out the advice of T. K. relative to collecting and using absorbents, (except the leaves of the forests) he would have no need of pumps nor cisterns about his yards.

For the benefit of such as are inquiring for modes and means, I will describe some of the Vermont barns or stables rather. The first can be found in West Pawlet, built and owned by Mr. BARDWELL. His stable is built with an open cellar, running through the entire length of it, of sufficient width to admit the passage of a team through it, and walled on the sides and bottom, water tight. The stalls for the horses and cattle are arranged on both sides of the cellar, with a floor, water tight, descending towards the cellar. Into this cellar all the bedding of the animals, with all their excrement, as well the liquid as the solid, are thrown together with other absorbents, sufficient to take up all the urine. To this cellar, the store hogs are admitted and perform an important work in manure making. Mr. B. has the means in such a cellar, to make any amount of manure he may desire. Should he wish to use more absorbents than would be needed to take up the urine, he can supply water as much as needed, and let the hogs mix with the solid. In such a case, the farmer will have no need of pumps or cisterns. In my next, I will describe other modes of constructing stables practiced here in Vermont. J. L. EDGERTON.

Georgia, Vt., Dec. 22, 1854.

Cultivation of the Potato.

MESSRS. EDITORS—I would like to obtain through your paper, some information in regard to the production of the potato, from persons extensively engaged in raising it for the Albany and New-York markets. There are farmers in the southern part of this state, I am informed, who frequently raise ten, twenty, and even forty acres of potatoes in a season; and it is fair to presume that those who are thus extensively engaged in the business, will, from superior attention to the most approved mode of raising and harvesting their crops, have acquired possession of many little items of information and experience, which others, who have bestowed less attention upon the subject, are ignorant of.

I say *little items*, for these ordinarily constitute no small part of the difference that exists in one man's performance of a piece of work, over that of another; and it is usually the case that strict attention to matters, which, in the abstract appear trivial, produces the most astonishing results.

So far as my knowledge of potato culture extends, there is entire want of uniformity in every farming community; and not only so, but there is far more diversity of opinion and practice in the production of this root, than in the production of any other kind of crop. In preparing a piece of turf ground of heavy quality, one man waits till late in the spring, and then throws it into ridges of two furrows to the ridge, and deposits his seed between the folded clods; while another would certainly have plowed such ground during the preceding autumn, and previous to planting would have cross-plowed, harrowed and thoroughly pulverized it. One preserves his seed for planting, by keeping it fresh in the earth till it is wanted for use, while another smokes and dries it almost to a crisp. One plants small tubers, another large ones, and others again prefer halves, quarters or single eyes. With one, science has demonstrated that every perfect tuber has a head and face, and that it should be deposited in the ground with great care, and in a certain position; with another, science is a humbug, and all such care is nonsense.

That mysterious planet, the moon, looks down with a smiling face, and proffers her bountiful gifts upon her faithful votaries; while others plant just when they get ready, regardless of her favor or frown. And the different kinds of potatoes that lay claim to superiority

in point of some valuable quality, it would puzzle any modest man to determine. One keeps up the old practice of planting in hills full four feet apart, and would regard any deviation from this ancestral usage, with something like the same abhorrence that he would the demolition of an old school-house and the erection of a new one, after looking downward and consulting the feelings of his pocket.

Another, General BARNUM, for instance, of Vermont, would prefer planting in drills only twelve inches apart, leaving a space of only one foot between the potatoes in the drill. One makes use of the hoe in planting, another the plow, while a third pays his respects to the custom of the aborigines, and deposits the seed in a hole made with a pointed stick.

And as to manuring, why, a little more than a year since, I paid a dollar and a half to a lecturer on agriculture, for telling me how to raise crops without manure; and I have since paid two dollars to another lecturer for explaining the mysteries of COMSTOCKING and the benefits of high cultivation. Cheap enough! There is no kind of manure, or mode of application that has not its advocates.

As to after-culture, some believe in hoeing once, some twice and some three times, while others do not hoe at all. Some make high hills, some low, some flat, some sharp.

Some do all their hilling at first hoeing, others reserve it for the last.

In harvesting, there are few crops that accommodate such a diversity of implements, so differently applied for accomplishing the same result. Now all these different modes of selecting and preserving the seed—of manuring and cultivating the soil, and of harvesting and preserving the crop, indicate an unsettled state of opinion in regard to the production and general management of the potato, which is probably without a parallel in the production and disposal of any other crop. And why all this diversity? Is it because the potato is perfectly adapted to all kinds of treatment, and that any kind of cultivation is equally suitable and judicious? Or is this lack of uniformity owing to a want of thought, of study, and of general knowledge in regard to the utility and feasibility of one mode of operation over another?

With the mass of farmers in this country, system, in the production of the potato, is by no means the order of the day. If the time ever comes, when their practice shall be more consistent with general rules, it must be brought about chiefly through the instrumentality of thinking, reading, practical, matter-of-fact men.

It is the practice and experience of *such* men, that I solicit through your paper. C. BLAKELY. *Bristol*,

We hope Judge OSBORNE, or some of the other large potato growers on the Hudson, will give us their experience in their culture.

Shrinking of Flannel—Enclose new flannel in a bag; put it into a boiler with cold water; heat and boil it. It will never shrink any more after this opperation, and should then be made up into garments.

Value of Shelter for Sheep.

A correspondent of the *Ohio Farmer*, Mr. E. CATTELL of Harrisville, Harrison Co., Ohio, has tried keeping sheep both with and without shelter, and has come to the conclusion *that it takes from half a bushel to a bushel more corn* to winter a sheep without than with shelter, and asks: "would it not be well for farmers generally to make some temporary shelter for this winter, and thus save their feed?" We are satisfied that it would. Even *temporary* shelter is better than none at all, but *permanent* sheep sheds, in most places can be erected so cheaply that few farmers have any excuse for being without them. Mr C. cuts all his fodder by horse power in the fall and stows it away in the barn. This enables him to feed it to much better advantage under shelter, but he does not find as much advantage from the practice as from sheltering stock.

Lincolnshire Farming.

It is not many years since the county of Lincolnshire in England, was what we should term a swamp. Underdraining and other processes of modern agriculture have converted it into one of the most productive counties in Great Britain. So much so, that it is usually spoken of as the "Garden of England." Mr. WM. FOWLER of East Kirkby, Lincolnshire, writes us that land has recently changed hands there for $550 per acre, and grass land for feeding cattle rents for $25 per acre. Farms are quite large—from one to two thousand acres. They are managed on the four-course system—one fourth clover and seeds, one fourth fallow or turnips, and two fourths wheat. The rent of such farms averages from $5 to $7 per acre. They are in a very high state of cultivation.

Mr. Fowler remarks: "A great deal is said about artificial manures, both in England and America, but if farmers would pay more attention to their farm-yard manure, make tanks for the liquid, and use more linseed cake, they need not expend so much money in buying the trash from Saldanha Bay, the scrapings of the Ichabo sands, &c. Broken bones dissolved in sulphuric acid is a first rate manure for *turnips*, in this country, say four bushels per acre dissolved in 100 lbs. of acid, and mixed with, ashes, &c.* I have known very good crops of turnips grown with this dressing alone, but farm-yard manure is the main-spring of good agriculture.

Linseed cake is used to a great extent. "One of my neighbors has bought sixty tons this year. It is now worth £13 10s. ($65) per ton We generally get paid in the stock, and the manure is much increased in

* Mr. FOWLER refers to coal ashes, which are commonly used in England for mixing with guano, superphosphate and other artificial manures. Some of our best agricultural writers have thoughtlessly recommended the same practice in this country, forgetting that "ashes" here would be understood as *unleached wood ashes*. Indeed there are those who have recommended unleached wood ashes to be mixed with guano and superphosphate of lime, than which nothing could be more injurious, since they would liberate the ammonia of guano, and convert the soluble bi-phosphate of lime of the superphosphate, into the insoluble phosphate of lime, and render the mixtures comparatively valueless.

value." Beef is worth from fourteen to sixteen cents per lb. The past summer in England, as in this country, has been one of extreme drouth, and all sorts of fodder and feed are very scarce and high. Mr. F. says, "Skirving's Swede turnips are making from £8 to £10 ($40 to $50) per acre." Though this is considered a very high price in England, a good crop of Skirving's ruta baga would sell for much more money in this country.

We shall be pleased to hear from Mr. FOWLER frequently.

Farm Hedges—No. 2.

MESSRS. EDITORS—The ground being in a fit state to receive the plants, we will discuss their preparation, &c. The plants when obtained from the nursery, should be sorted, if not done before, keeping all large and small plants in separate parcels, and avoid mixing in planting as much as possible. Trim the roots, cutting off all scraggy roots to facilitate planting, and cut off the head of the plant about one inch above the ground after planting. I cut the plant before putting it in the ground, by taking a handful of plants by the roots and cutting them off at one blow with a sharp hook or hatchet on a block, about two inches above the collar. I consider from experience, that a hedge trimmed at time of planting, to have more than two seasons benefit over one trimmed or cut down the season after planting.

To obtain an ever growing hedge, I recommend small plants, as there is less failure in their taking root than with large ones, unless put in by an experienced hand, and though plenty profess to know all about it, I have never met with more than one or two that could pass for such on trial. After the roots are planted, attention must be paid that nothing be allowed to trespass on them whereby the tender buds may be broken. Dogs, cats and poultry, are fully as detrimental to making a good hedge, if allowed to pass and repass where the buds are about to sprout, as hogs would be in a corn or potato field in securing a profitable crop. Nothing should be allowed to pass across the hedge the first year or two whilst in sap, if you would secure a good hedge. To guard the tender shoots, I have found it beneficial to stretch a wire no. 12, a few inches above the ground, allowing the plant to grow around it, and if another be put two feet or more from the ground it would be a further security against trespassers.

These directions I have given for an ornamental hedge. For farm hedges, it would be needless to cut down—the object in farm or line hedge, being a heavy and strong growth in the most expeditious manner. To effect this, the plants should be allowed to grow, unpruned, until fit for plashing—for cutting or trimming weakens the plant and retards its growth more than persons imagine. I have plants that are seven years old, that are six times the diameter of others that are ten years, and in height the difference is as three to one, and all owing to occasional trimming or pruning W. M. BEAUCHAMP. *Skaneateles, Dec.*, 1854.

Curing Pork and Hams.

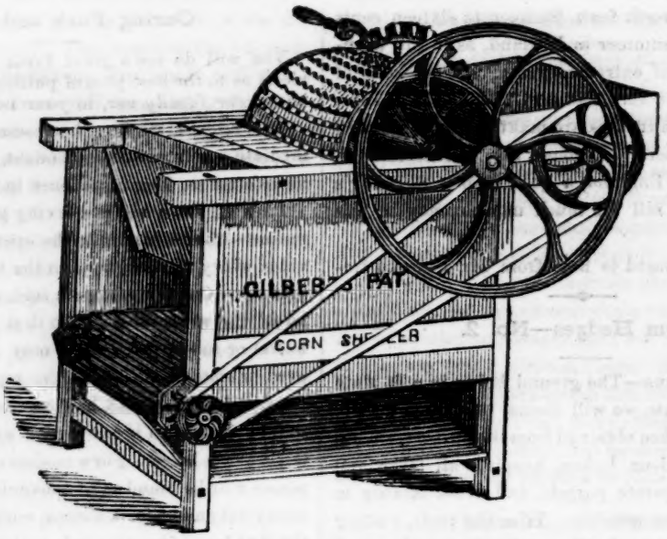
You will do me a great favor by giving me your views as to the best plan of putting up pork and curing hams, *for family use*, in your next number. J. C. P.

This request, we fear, has come too late to be of immediate use to our correspondent, who has not had, as he informs us, long experience in rural economy.

Packing down and preserving pork, is a very simple process—the more simple the operation the better, provided every thing is done in the best and most perfect manner. Cut the pieces in such a form that all may be of the same breadth, so that when packed in the barrel or tub *on edge*, they may form a layer with an even or smooth surface at the top. Before putting in the first layer, spread half an inch of salt in the bottom of the barrel if the pieces are small, and an inch if they are large. For a moderate sized family, small pieces will be found most convenient, each piece being easily taken out for a dinner, without cutting. When the first layer is completed, which should be made as close and compact as possible, then spread another similar layer of salt over it, and make another layer of pork on this, and so on till the barrel is filled, or till the pork is all packed down. In two or three days, pour on *saturated* pure brine, till all the interstices are filled, and the pork is covered with it. If the pork has been closely and neatly packed, a very few quarts of brine will be enough for a barrel. Let a cross-bar frame be laid on the pork, with a heavy weight on this, to keep it constantly under the brine, and no further care is necessary, except to keep the pork barrel in as *cool a cellar as possible*, especially in summer.

To cure hams, place them in a tub or barrel, and without applying any dry salt, pour over them at once, pure saturated brine, precisely such as is used for pouring on the pork barrel, enough to cover them entirely. After remaining thus two or three days, take them out and place them on a plank table, and rub over them the following mixture:—1 quart of molasses, one fourth of a pound of *pulverized* salt petre, and enough salt to form a thin paste or semi-fluid mass. Rub this on the meat side of the ham every morning for five days, and then hang them up in the smoke-house. Cobs are said to be the best for creating a smoke, but in the absence of these, we have always used hickory or maple chips or wood. Hams from *large* hogs may need a longer time in the brine, and more frequent rubbings with the mixture. ☞ It is absolutely necessary, in order that hams may keep in warm weather, that the flat bone be removed which covers the smooth hemispherical bone, before they are placed in brine.

There is no better way to protect hams from the fly and all external harm, than to sew them up in cheap cotton cloth, and then carefully whitewash those all over, so that the lime may effectually close up every pore or opening by which an insect can enter. Packing in dry ashes, or in pulverized charcoal, also excludes the fly, but in this case they require a box or tub to pack them in, which is cumbersome, and they are not so easily and conveniently accessible, as when hanging up in their sack coverings.



Gilbert's Corn Sheller and Separator.

We have recently examined one of GILBERT'S Corn Shellers, and were much pleased with its construction, and the ease and rapidity with which it shelled the corn. It is a spiked or toothed cylinder, working over a concave having similar projections. Such machines are considered stronger and less liable to get out of repair, than those which revolve in a vertical direction; but they have hitherto been objected to on account of breaking up the cob and corn. Mr. GILBERT claims to have obviated this difficulty by making the spike entirely flat on that surface which strikes the corn, and by this means it is said the corn is removed from the cob without injury. The spikes are cast in spiral lines around, and in curved lines along, the cylinder, so that it is impossible for the cob to pass through without rolling parallel with the axis of the cylinder. The concave is made of sections of two inches wide each, each section resting on a strong steel spring, while the entire concave supported at one end by two strong bolts, can be raised or lowered as the size of the corn may require.

Mr. G. asserts that this machine will shell more corn than any other sheller, that it does not break the cob or injure the corn, that it will deliver the corn altogether separate from the delivery of the cobs, and that, though worked easily and conveniently by hand, it can be attached to a horse-power at an expense not exceeding fifty cents, and that when so attached to a horse-power, it will shell at least 50 bushels per hour. The Shellers are of two sizes, and are manufactured in this city by DEERING & DICKSON. Price $17 and $20.

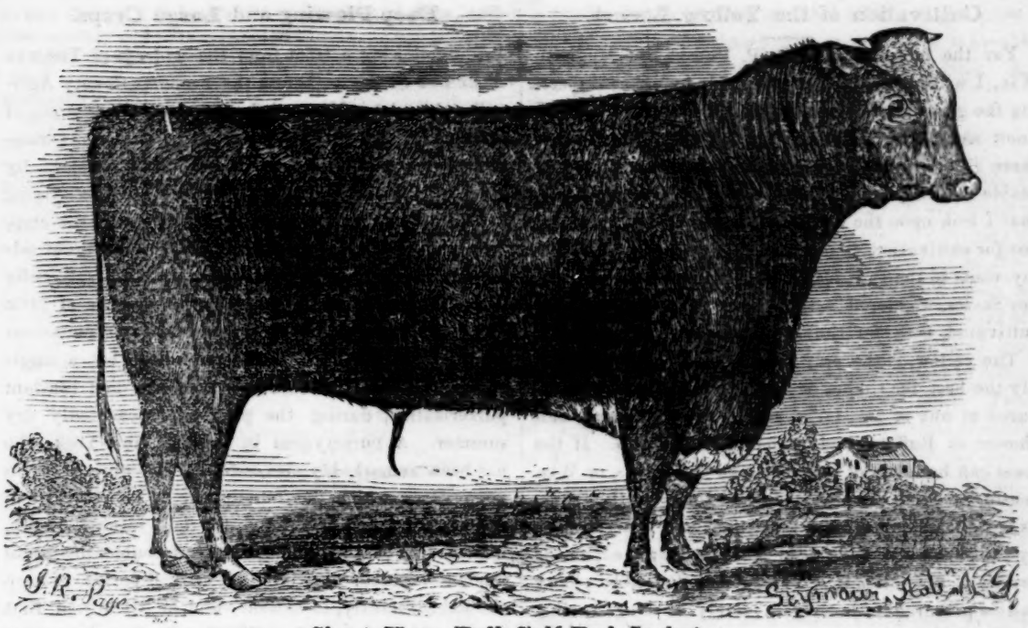
Water-Drill for Artificial Manure.

Superphosphate of Lime is used to a great extent in England as a manure for turnips, ruta bagas, mangel wurzels and other root crops. When sown broadcast it has very little influence on the crop, but when *drilled with the seed*, its effects are often times astonishing. PHILIP PUSEY and some others have shown, too, that when the superphosphate is dissolved in water and applied in the seed drills in a liquid form, the effect is still more beneficial. ALFRED S. RUSTON, in the London *Farmer's Magazine*, gives the results of some carefully conducted experiments on the subject. There were seven separate experiments made, but as the results agree pretty closely we select one as a sample of the whole.

Three plots were dressed with eleven loads of barnyard manure per acre, thrown into ridges, and sown with mangel wurzels April 17th. The first plot received no artificial manure. The second 112 lbs. LAWES' Superphosphate of Lime per acre, drilled in *dry*, and the third plot 112 lbs. LAWES' Superphosphate of Lime drilled in a *liquid state* with Chandler's water-drill. The crops were weighed Oct. 4th. The first plot yielded per acre 8 tons 15 cwt; the second 13 tons 15 cwt; and the third 17 tons 7 cwt. In other words, 112 lbs. of superphosphate per acre, drilled in dry, gave an increase of 5 tons, and the same quantity applied in a liquid state an increase of 8 tons 12 cwt. per acre. The cost of the superphosphate was $1.80 per acre. This is a good result, although it is usually found that superphosphate has a more marked effect on turnips than on ruta bagas, and even still more than on mangel wurzel.

The above yield will appear small to those who are frequently reading of crops of 1,500 to 2,000 bushels per acre. The great drouth of last year, doubtless, materially injured the crop, especially where no superphosphate was applied. But as the weather in England last summer approximated more closely to what it usually is in this country, the experiment may be looked upon as pretty correctly indicating what would be the effect of an application of *good* superphosphate of lime, in a dry and in a liquid state, to mangel wurzels in this climate.

Dost thou love life? then do not squander time, for that is the stuff life is made of.



Short Horn Bull Calf Red Jacket.

Owned and bred by Col. J. M. SHERWOOD of Auburn, to which was awarded the second prize at the late State Fair at New-York. Calved Nov. 3, 1853. Got by 3d Duke of Cambridge, 5941—Dam Red Rose 2d, bred by J. Stevenson, Durham, England, of his Princess' family, by Napier, 6237.——Tube Rose, by South Durham, 5281 —— Rose Ann, by Belerophon, 3119. —— Rosette, by Belvidere, 1706. ——Red Rose, by Waterloo, 2816, Moss Rose, by Barron, 58. —— Angelina, by Phenomenon, 491. —— Anna Boleyn, by Favorite, 252. —— Princess, by Favorite, 252. ——(Bred by R. Collins,) by Favorite, 252. —— by Hubbuck, 319. ——by Snoden's Bull, 612. —— by Masterman's Bull, 422. —— by Harrison's Bull, 669.

Good Butter Cows in Ohio.

MESSRS. EDITORS—Having frequently read in the columns of the "COUNTRY GENTLEMAN," accounts of remarkable cows, I will endeavor to convince you that all of the good cows do not graze east of the mountains. Our Hamilton Co. Agricultural Society, has awarded several premiums to ED. R. GLENN, for the largest yield of butter from a single cow, to be fed on grass alone. She obtained the premium three succesive years—the certified yield each time being above 16 lbs., and once, in five weeks, she made 81 lbs. of butter.

On the first of May 1852, I purchased three cows of one of our neighbors at apparently a very high price; but to which I was reconciled by a warantee, that one of them should make during the first week, 10 lbs. of butter.

To test the warantee and as a matter of curiosity we carefully measured her milk, kept it separate, and churned the cream in a hand churn. The result was 210 qts. of milk, which yielded 14 lbs. 2 oz. butter. The greatest yield on any one day was 32 qts. of milk. She was a very "Large Red" (her name) cow of native breed, but bore the outward appearance of a deep milker.

Though some of your correspondents have given statements of cows which have exceeded the yield of ours, I embrace this opportunity to throw down the gauntlet as to two years produce of a dairy of 16 and 17 cows. I will premise that the years '51 and '52 were very dry, that the cows were of native stock, selected for their milking properties alone, without regard to size, color, or breed,—were from three to ten years of age, and were kept as a regular dairy for profit and not for premiums. The statement includes all the butter, but does not make any allowance for the cream and fresh milk used by a family averaging 14 persons.

In 1851, 16 cows made 3137 lbs. of butter, or 196 lbs each. The butter sold for $881,90 or $55,12 per cow.

In 1852, 17 cows made 3312 lbs. of butter, or 195 lbs. each. The butter sold for $876,57, or $51, 56 per cow.

ALEXANDER NEAVE. *Springdale, Ohio, January 1, 1855.*

Mulching Trees.

MESSRS. EDITORS—In the spring of the year 1854, I planted some young apple trees—in doing which, the man who dug them up, cut their roots quite too short. In order to preserve them against the effects of drouth, nothing ordinarily used for mulching being convenient, I threw around them a mound of earth about thirty inches over and ten inches high, and drove around each of them a row of short stakes to prevent the access of hogs. This answered the purpose most effectually. This mode of mulching also supports the tree against the effects of wind, and will be found very useful to persons planting young orchards. When the trees are well rooted, the mound may be gradually removed. H. J. CANFIELD. *Canfield, O.*

Cultivation of the Yellow Locust.

For the information of D. P. POWERS of Madison, Wis., I will undertake to answer his inquiries respecting the growing of locust timber. I believe I "really know something about it," having sown the seed in three different localities, and brought them to a profitable maturity in each case. And permit me to say, that I look upon the locust, as the most profitable timber for cultivation in our country; and have often in my visits to the Prairies of Wisconsin, and other Western States, wondered why it was not more generally cultivated, both for timber and shelter from the wind.

The yellow, is the only kind used here, and probably the best for timber or fuel. The seed can be procured at any of the large seed stores of Albany, Rochester or Buffalo, and probably at Chicago. If the trees can be found of sufficient age in Illinois, or Wisconsin, seed can be obtained from them at this time, as it remains on the trees all winter, and is not injured by the storms. I have seen trees bearing seed, on the prairie a few miles west of Racine. Probably plenty can be procured in that region merely for the gathering. Plant the seed about 15th May, or when the ground is in good condition to plant corn.

Prepare the seed for planting, by pouring on it rain water, nearly boiling hot. Let it stand in a warm place, say under the stove, or near the chimney corner, until the seeds have most of them swelled to about double their usual size; and are so soft as to be easily cut in two, by pressure between the finger and thumb nail. This requires 24 to 48 hours soaking, and if all are not swollen, sow those that are so, and repeat the soaking, but with water not quite so warm as at first.

Prepare the ground in the most thorough manner. It should be rich, dry and mellow, and free from the seeds of weeds. I have succeeded well, on a green sward, freshly plowed, and the surface well mellowed with the rake. The ground should be in fit order for sowing onions, as the plant when it first shoots is very tender and small. Plant shallow, not over one inch deep, and tread the ground or roll it after the seed is in. Rows about 4 feet apart, and seeds 3 or 4 inches apart in the row; so as to insure plants enough for one to each space of 12 to 18 inches. Hoe them as soon as they are fairly up, which will be in 15 to 20 days after planting. With these, as with every other young plant, careful attention is necessary, to insure the best success. If well attended to, an average growth of 4 feet each, may be expected the first season. After the first year, but little attention is needed. Do not undertake to improve them by trimming, except to prevent crotches, which are objectionable if timber is the object.

They will withstand the winds, as well probably as any other tree. The only enemy we dread is the borer, which is sometimes troublesome, but not seriously so. The general advantages are, rapid growth, 14 to 16 years producing trees large enough for posts, great durability, and weight, with strength and toughness, fitting them for wagon hubs, railroad ties, &c. No other timber, I think, equals it for the purposes desired, and certainly none in the facilities with which it can be produced. LEVI J. HOPKINS. *Throopsville, N. Y.*

Deep Plowing and Large Crops.

The following extract from the address of THOMAS ALLEN of St. Louis, before the Franklin County Agricultural Society, Missouri, furnishes a strong proof of the benefits of deep plowing and thorough pulverization,—a mode of treatment which is doubtless specially applicable to the deep soils of the west. As for stirring the soil in a dry season proving detrimental to the crop, we could cite many instances in proof of its great advantages, provided it is *thoroughly and efficiently done*—if superficial and imperfect, it may be of little use, and we have known it under peculiar circumstances to prove injurious. We mention here but a single case of the beneficial results of thorough and constant pulverization, during the past unprecedentedly dry summer. A nurseryman in western New-York who has been remarkably successful in the growth of his young trees, which did not appear to be retarded in the slightest degree through the late intense drouth, informed us that he employed about double the usual amount of labor through that critical period, to keep the soil constantly, in motion—and he discovered that it always came up moist, while in all other places, differently treated, the earth appeared as dry as ashes.

Seven acres was enough for a Roman farm, and two and a half acres in Flanders is deemed sufficient to support a man with a wife and three children. We have an example of a gentleman in Bracken county, Ky.; who has produced this season, it is stated, notwithstanding the drouth, seventy-five bushels of corn to the acre, on a field of one hundred and twenty-five acres, and this he has done by sub-soil plowing. Suppose each family in Franklin county had made their twenty-one acres produce as well? Each family would have had a crop of 1,575 bushels, making 3,150,000 bushels in the county, or more than six times as much as your entire corn crop of 1850. This possibly might have been the result, had each family in your own country last spring put in twenty-one acres of corn, and in plowing the land had simply put the plow into the ground up to the beam or perhaps better, instead of turning up the sub-soil, had merely pulverized it by a sub-soil plow. Yet this result would not have been equal to the capacity of the soil. In that same year 1850, there were nine competitors for the premium corn crop of Kentucky, each of whom cultivated ten acres, and their average crop was one hundred and twenty two bushels per acre. Now many suppose that much stirring of the soil, particulary in a dry season, is detrimental to the crop, whereas the true philosophy of the matter seems to be, that mother earth is something like a sponge, ever ready to absorb moisture and gases from the dews and the atmosphere, and thus favor disintegration, and the development of the alkaline and other ingredients which give nutriment to the roots of plants: and this she is the more able to do when the surface is really spongy by stirring, and not packed and baked and rendered impervious, by the tramp of feet, the beating of storms, and scratching, rather than plowing the surface. Spade husbandry is an illustration and proof of the benefits of deep plowing. The advocates of deep plowing do not mean to say, that the process gives any new ingredient to the soil, except what comes by air and moisture, but rather, renders more available the latent virtues which it already possesses. Hence, it will not do to rely on that process alone, because the soil will soon become exhausted. But by rotation of crops, by returning to the soil, in manure, some of the ingredients you have taken from it, and by deep plowing, together, you are in the way of producing the best results. And this is

no new theory. It is older than Virgil, and Cato, and Cincinnatus, and Pliny, and Columella.

"Quid est agrum bene colere?" said Cato: 'Bene arare. Quid secundum? Arare. Quid tertium? Stercorare.'

Plow, plow, and then manure; that is the old theory, and just as good now as it was two thousand years ago, and a little better; because we can more effectually reduce it to practice.

Plow early, plow deep, cross furrow, harrow well, manure and fallow your land, and change your crops, was the doctrine of Virgil.

"When first young Zephyr melts the mountain snow,
And spring unbinds the mellow'd mould below,
Press the *deep plow*," &c. * *

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"Rest by *alternate fallows* wearied earth,
And leave the soil to harden into birth:"

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"Yet shall thy lands through easier labor rear
Fresh crops by *changeful produce*, year by year,
If *rich manure* new life and nurture yield,
And *ashes* renovate th' exhausted field."

* * * * * *

"Th' obdurate glebe with *frequent harrow* break,
With osier hurdles each dull clod awake.
Fair Ceres' self shall kindly view thy toil,
When sidelong *furrows cross* the furrow'd soil."

Virgil—Georgic I.

Millet for Soiling or Fodder.

Messrs. Editors—I have seen frequent recommendations to sow Indian corn for soiling. I have tried it several times; but I have always found that my cattle would not eat it when they had other food, and that my cows invariably failed in their milk when soiled with it. For this purpose and for dry fodder, I prefer Millet by far. The latter may be sowed, in our latitude, from the 1st of May to the last of June. If sown during a dry spell, the seed will remain uninjured in the ground until a sufficient quantity of rain has fallen to make it shoot up. It is excellent as green food for cows, and first rate dry fodder for horses and for all kind of cattle. The quantity of seed should be from twenty to twenty-eight quarts per acre, according to the condition of the soil. It is apt to grow coarse when sowed too thin on rich ground. Plow and harrow, then sow, cover with light seed harrows followed by the roller. If intended for fodder, it should be cut with the naked scythe, when the heads and stalks are getting yellow and the blades are still green. The mowers should lay it lengthwise of the swaths, which they will do easily with a little practice. It should be left in swaths, in favorable weather until nearly dry, then gathered in bunches with the hands, turned upside down and left to dry again before binding; but should there be wet weather, it may be shocked before it is dry, and will remain safe until there is an opportunity for drying; great care, however, should be taken not to take it up before it is perfectly dry, as it is very apt to ferment and to get mouldy. It may be thrashed by machine, but I prefer the flail. Thrashing lightly without unbinding, only turning the sheaves, will take off all the perfect seed. By these means seed enough is obtained to pay for the greatest part, if not the whole, of the expense, and you have from two to four tons of excellent fodder per acre, having the ground in good order for putting in wheat after a single plowing. If seed rather than fodder, is the object, it should be sowed rather thin and cut when perfectly ripe. A. B. *Wilmington, Del.*

The Strawberry Potato.

Mr. Tucker—In compliance with your request, I proceed to give you some account of those White Strawberry Potatoes mentioned in the Country Gentleman last spring, and of which I sent you a sample in November last. I obtained eight of the kind from a friend of mine in Oneida Co., N. Y., in the winter of of 1850. He told me that he obtained them at the State Fair in Buffalo, and that they were said to have been raised from the seed, in the state of Ohio. Two of them I gave to my man to plant. By some casualty he lost them. The other six I planted in my garden, in a careful manner; making 28 hills by cutting. The product was about 3 bushels. Before I had secured them they were nearly all affected by the rot. This was in the fall of 1850. I saved enough, however, of extremely small ones, to plant 14 hills the next year. The yield was nearly half a bushel, not enough to give me an opportunity to test their eating qualities. The whole product was planted again the next season, and the yield, after deducting what my family had used as early potatoes, (they are a little earlier than the Mercer,) was 6 bushels. Deducting what I had given away as specimens, the whole were planted the next season. This was in 1853. They were uncommonly fine, but did not appear to do so well on the mucky soil, on which they were planted.

The produce was 56 bushels—of these I lost 28 by the rot, which prevailed so extensively that season. These were sold at from 12½ cts. each, to $10 the barrel. I planted the last season some two or three barrels, and notwithstanding the severity of the drouth, the yield was 110 bushels. By careful observation from year to year, I feel warranted in the conclusion that the natural yield above any other variety that I am acquainted with, is nearly double; and as to the rot, they are no more subject to that disease than any other variety. As to their eating qualities, I have never seen their equal. They are called the "White Strawberry," which, on trial, will be found aptly to describe them as a table potato. "White," because they are as white as superfine flour. "Strawberry," from the fact that they do not grow as other potatoes, but have rather vines than stalks; something like a strawberry bush—and the leaves look like a strawberry leaf. The above is all I know of this variety of potatoes. I intend to dispose of about 80 bushels of the last year's crop—the price is $4 per bushel, or $10 the barrel of 2½ bushels, delivered in Albany. I do not intend this hasty line shall be an advertisement, yet if any inquiries should be made respecting them, a line addressed to me will receive prompt attention. G. W. Durant. *Rensselaerville, Albany Co., N. Y., Jan.* 1855.

The potatoes sent us by Mr. Durant, were superior to any we have had on our table, either boiled or baked, the last year.

Notes on Fruits.

On looking over the last Report of the American Pomological Society, we observe many interesting facts on the subject of fruit culture, which, with the suggestions they have occasioned, may be acceptable and useful to our readers.

INFLUENCE OF GROWTH ON HARDINESS. Our readers will recollect a striking instance lately given in this journal, of the effect of growth on the hardiness of the Osage Orange,—where luxuriant vegetation on a hill caused the destruction by winter of shoots four or five feet long, while a moderate and well-ripened growth in a frosty valley did not lose as many inches. We observe in the report of the State Fruit Committee from Maine, a case stated, where an orchard of eighty pear trees was planted in autumn while the leaves were yet upon them, and which appeared to induce a cessation of growth and ripening of the wood. The subsequent winter was very severe, (31° below zero,) but these escaped injury, while of the remainder in the nursery row from which these were taken, a considerable number were killed.

There is one crop (the ice crop,) that never fails in Maine, and this advantage, possessed by that state, in connection with the late ripening and excellent keeping qualities of winter apples there, furnish peculiar facilities for exportation; and we are informed that Baldwins have been packed with ice and sold at Calcutta, weeks and even months after the stock of this variety has been exhausted at home.

APPLES IN VERMONT. The report of C. GOODRICH of Burlington, informs us that the Northern Spy, so far, has quite failed in fulfilling the expectations at first raised in relation to it. The grafts were purchased of a Rochester nurseryman in 1846, at $6 per 100 (which he thinks was not "fair," but does not state whether the nurseryman who charged the price, or the purchaser who encouraged the extortion was unfair,) and now, in 8 years they have produced but little fruit: while the Baldwin, in half that time, has produced full crops. This is a very common disappointment with the Spy, and it may be unsuited to northern Vermont; but even in western New-York, where it succeeds so finely, and has proved so profitable when well cultivated, we know of not a few who are becoming impatient with their young orchards of this sort, and are about to alter the tops. The truth is, the Spy was much overpraised at first, and now that the illusion has become somewhat dissipated, many are disposed to set it down much lower than its merits deserve.

This report speaks very highly of the *Gravenstein*, as fair, very hardy, a good grower and *bearer*, and in every respect valuable in Vermont. There are, we believe, but few if any localities any where, that this excellent variety does not seem well suited for.

NURSERYMEN'S REPUTATION. Some of the State reports speak of *nurserymen* as persons of rather doubtful reputation, and "nurserymen's humbugs" are sometimes alluded to. We do not think this is unjust; for with some very honorable exceptions, that profession, more than any other, has been filled in this country by quacks and pretenders. We happen to know a few, who have so very little knowledge of pomology, as not to be able to distinguish some of the most common fruits—who positively, for instance, do not know a Baldwin from a Spitzenberg, nor a Bartlett from an Urbaniste,—who succeed in crowding annually thousands of dollars worth of trees into market—and who impose vast numbers of spurious sorts on the public. They sell a little "*cheaper*," and this explains the whole. While these things are so, we are willing the "profession" shall have its richly-earned reputation; and those who are capable and honest, must build a character on their INDIVIDUAL MERITS.

WINTER-KILLING OF DWARF PEARS. Our readers have been already informed that last winter was peculiarly destructive to the dwarf pears in some of the western States, and which has induced some to think them unadapted to the west, although there is reason to believe that this is to be regarded as only a rare or occasional occurrence—like that of the season some years ago, that destroyed such large numbers of young pear trees on *pear* stocks, the quinces entirely escaping. In corroboration of this belief, we observe that the State Fruit Committee in Connecticut, speak of the many dwarf pears in that state destroyed the past winter there—a locality where they have hitherto succeeded so well, and where they will probably continue to do so during all ordinary seasons.

INFLUENCE OF THE STOCK. We have always regarded the influence of the stock on the fruit borne by the graft, as precisely similar to the influence of soil or cultivation. The stock furnishes sap plentifully or sparingly according to its nature, and modifies the character of the crop just as a cold or warm, an early or retarding soil, accomplishes the same result. We know that the character of the soil, and more especially whether under good or bad culture, often produces great variations. Extremely dissimilar stocks do the same, although the nature of the variety is not *permanently* changed. The report of J. B. EATON of Buffalo, states that he has worked the Rhode Island Greening on a sweet stock, and the fruit becomes more highly colored, being often a beautiful yellow with a red cheek, and that it loses a part of its acidity. A suggestion of some importance immediately occurs,—may not the crops of some varieties be materially improved by a selection of certain stocks, and may not a series of experiments be worthy the attention of those refined amateurs, who wish to secure the very best and highest flavored specimens?

CRACKING OF THE PEAR. The same report informs us as a proof that the cracking and spotting of the pear is not to be ascribed exclusively to the nature of the soil, that the White Doyenné, "in the same row, but a few feet distant, of the same age, from the same nursery, and upon the same soil," will produce, some fair and fine fruit, and others only cracked and imperfect specimens. To which we may add, that the only appearance of this disease that ever occurred on our

own grounds, was on a young and thrifty Doyenné, on a soil admirably adapted to its growth, in a single season when the leaf-blight was remarkably prevalent: and that in all other seasons before and after this occurrence, the fruit presented that large size and ruddy appearance, for which the finest specimens at our fruit exhibitions are remarkable.

Amusing Names. The Report of the Pennsylvania Horticultural Society on Seedling Fruits, gives us among others, the following names of new and valuable sorts, some of which might possibly be changed for a better;—Never-sick, Evening Party, Sink, People's Choice, Freeze and Thaw, &c.

Fruit Culture in Mississippi. J. C. Jenkins, of this State, gives the "fifteenth of May" as the time of ripening for the Madeleine pear and Doyenne d'Eté; and from two to four weeks later for Bloodgood, Gifford, Rostiezer, and Tyson. Our more common autumn varieties, such as Angouleme, Doyenne, Diel, Bosc, Flemish Beauty, &c., ripen from the middle to the end of summer; while the Winter Nelis, Chaumontelle, Glout Morceau, &c., prove to be middle and late autumn sorts.

We would advise our southern neighbors to look well to the fact of the early maturity of our summer pears there—they may yet establish a most important and profitable branch of business. Pears may be shipped much longer distances than peaches, and if they may be gathered for sending north about the time our pears are in blossom, or in full leaf, they would sell in immense quantities and at very high prices.

The Julienne. This pear was long since rejected by most of our northern fruit raisers, as unworthy of cultivation. The Cincinnati pomologists retain it as one of their best sorts; but the commendation it receives from the Mississippi report, furnishes the most remarkable proof of the variation sometimes effected by climate. We quote the exact words of the report:

This pear I think the most desirable for general cultivation in this State of all the summer varieties; has fruited with me both on standard and quince. On quince stock, my trees, six and seven years from bud, have a trunk eight inches in diameter and fifteen feet high; vigorous and healthy wood. Trees this year loaded down with fruit; had to thin out, leaving about three hundred specimens on each tree; will ripen in fruit cellar, if taken from the tree, from middle of June to end of July, and continue in eating to 20th August: fruit large size; most of my specimens weighed half a pound, and not unlike Bartlett in shape; ripen in fruit cellar beautifully, turning from green to a rich lemon yellow; surface shining, waxy, and looking as if varnished; flesh melting, buttery, and rich, and having a most delicate perfume: quality best. Fearing I might be over-estimating this variety, I invited to my house a number of gentlemen who were familiar with best fruits, north and south. I had in eating, at the same time, White Doyenne, Bartlett, Beurré Bosc, Beurré Diel, Golden Beurré of Bilboa, Duchesse d'Angoulême, and some other varieties, but the Julienne bore off the palm, without a dissenting voice, for beauty in color, for its melting qualities, and for delicacy of flavor.

The question immediately occurs, What would be the product of a single acre of such trees? And could not such large and beautiful fruit be sent to our northern markets, at least one month before our very earliest sorts (small and poor as they are) make their first appearance?

Aspect for Southern Orchards. Although the thermometer has never been known to fall lower in Mississippi than fourteen, and fruit trees are never killed by the cold, yet we are informed that the same care is needed as at the north to secure a northern exposure. Apricots absolutely require a place on the north side of buildings, or other similar protection. The great liability of pears to rot at the south, renders it very essential to pick them early, and house-ripen them; and great advantage against the effect of drouth has been derived from irrigation, by the slow leakage from a barrel of soap suds, placed at each tree.

How to Make a Bouquet.

For center table vase.—Considerable ingenuity and skill can be displayed, where flowers are plenty, in fixing this necessary adjunct for a party. It may consist of a low one, which is generally made by piling up moistened sand in the dish as high as possible, cone-shaped, and sticking this full of flowers, beginning at the bottom—or it may be made in this wise, when, if brilliant effect is desired, nothing can be handsomer.

Fill the dish even with the top with just moist sand; then take a few nice bushy branches of hemlock, from two to three feet high, and stick perpendicularly into the sand. Now take some pieces of string and tie the hemlock in several places, at the bottom, as large as the bouquet is wanted, gradually bringing the top to a point. The height should be determined by the height of the lamp usually over the table, and the size of the bottom of the bouquet. If the hemlock is properly placed in the sand, here will be a ground work to commence placing the flowers on.

A quantity of green, such as large scented geranium leaves, should now be stuck in all round the bottom, and similar rows round to the top, decreasing the distance between each row according to the diameter. All the flowers without stems sufficient of their own, must have pieces of willow fastened to them; where the flowers are small, several to be tied in a bunch, taking care that all hang as loosely as possible.

Select flowers the most drooping; for winter, nothing is finer than the Abutilon. Fuchsias, when they can be had, are best of all; stick these around the bottom, to hang gracefully down. Take all the most conspicuous flowers, (camellias for winter and roses for summer,) and place at equal distances over the whole cone. They may be placed indiscriminately, without order, except for contrast in color, or if ample flowers of white and scarlet are at hand, they may be placed in circles first white, then red, and so on to the top, the distance between the rows to be determined by the stock of large flowers. After these are all stuck in, the interstices should be filled up with such small flowers and green, as are at hand. The top should be finished with a few sprigs of some erect somewhat spreading flower, as cestrum, salvia, &c.

The small glass vases usually around the large one, should have one camellia or rose in each; some other little simple flowers, as the daisy, around, and some green to hang over the side. Edgar Sanders.

Potato Experiments.

In consequence of the premiums offered by the New-York State Agricultural Society, Mr. H. H. EASTMAN of Marshall, Oneida Co., N. Y., has made some interesting experiments in potato culture, the full details of which will be found in the *Transactions* of the Society for 1852, page 342, and in the volume for 1853, recently issued, page 297.

In the first year's experiments, 1852, some of the most noteworthy results were as follows: Ashes, lime, sulphur and salt-petre (nitrate of potash,) diminished rather than increased the yield. A tablespoonful of gypsum applied when the potatoes were up, increased the crop from 130 to 156 bushels per acre. Hog manure, half a shovelful in each hill, gave the largest crop—271 bushels per acre. Fowl manure, a large handful in each hill, gave the next best yield,—229 bushels per acre. The plot without any manure at all, gave 166 bushels per acre.

The soil was a gravelly loam, greensward, plowed nine inches deep early in the spring; potatoes planted 18th May, and hoed twice; variety red "Irish lunkers."

To test the question of early, medium and late planting, one plot was planted the 18th of May, and gave 142 bushels per acre; another, planted the 23d of May, gave 131 bushels, and another, under similar conditions, planted June 8, gave only 100 bushels per acre.

The experiments in 1853, were with three different varieties, the Mercer or Philadelphia, the red Irish lunker, and the Carter. The ground was a greensward, plowed early in the spring, eight inches deep. Soil mucky; planted May 7; the hills were three feet apart, each way; seed planted whole. Hoed twice, last time slightly hilled. We have made selections from the principal results and embodied them in the following table, which shows the produce of the three varieties without any manure, and the effect of the various fertilizers, *applied in the hill* at the time of planting.

Description of the manures, and the quantity applied in each hill.	Total number of bushels per acre.			Increase per acre from manure, in bushels.			Quantity of *unsound* potatoes per acre, in bushels.		
	Mercer.	Irish lunkers.	Carters.	Mercers.	Irish lunkers.	Carters.	Mercers.	Irish lunkers.	Carters.
1.—No manure,	72 1/4	117	134 2/5	....	....	....	1	1	2
2.—1/3 shovelful hog manure,	130 3/5	255	282	58	138	147 1/2	15 2/5	26 1/2	21 3/5
3.—1/2 " long unfermented manure,	104 2/5	154 1/2	179 3/5	32	37 1/2	45	8 1/5	20	45 1/2
4.—1/2 " compost,	89 1/2	183 1/2	152 1/4	17	66 1/2	18	4 3/5	17 1/2	83 3/5
5.—Tablespoonful of guano,	87	172	134 3/5	14 1/2	55	00	1 2/5	6	31 1/4
6.— " superphosphate of lime,	96 2/5	169 1/5	138 3/5	24	52 1/2	4	4 3/5	3	13 3/5
7.— " gypsum, or plaster,	....	106 1/2	....	....	-10 1/2	....	....	3 1/2	....
8.—1/2 handful of poudrette,	89 1/2	163	146 2/5	17	46	12	3 1/2	9 1/2	38 3/5
9.—Handful of wheat bran,	96 1/2	148 1/2	150 2/5	24	31 1/2	16	5 1/2	....	3 1/4
10.— " fowl manure,	75 2/5	140 1/5	....	3	23 3/5	....	5 1/2	....	....
11.—1/2 handful of ashes,	85	143 1/2	....	12 1/2	26 1/2	....	1	....	....
12.— " lime,	....	117 2/5	....	....	—2/5	....	....	....	....

There is a striking difference in the yield of the three varieties,—the Mercer, in every case, producing less than the Irish lunkers and the Carters. They have, however, as a general thing, fewer *unsound* potatoes. The Carters appear to be exceedingly liable to disease. In one instance, no. 4, with compost, more than half, or 83½ bushels out of 152¼, were unsound.

The hog manure in the second, as in the first experiments, gives the greatest increase with each variety. The Carters, with this manure, gave 282 bushels, in the aggregate, or 260 bushels of *sound* potatoes per acre. In these days of potato degeneracy, this is a good crop. Long, unfermented manure, gives a comparatively poor crop with all the varieties. Poudrette, wheat bran, hen manure, and ashes, have but a slight beneficial effect. Lime gave no increase, and gypsum would seem to have done more harm than good, since, with the Irish lunkers, the plot receiving a tablespoonful of plaster in the hill, actually yields 10½ bushels per acre less than that with no manure. This confirms the common opinion that plaster has little or no effect on low, moist soil, while on dry upland it usually proves beneficial. In the first year's experiments, on "gravelly loam," plaster applied when the potatoes were up, gave an increase of 26 bushels per acre, and applied in the hill at the time of planting, an increase of 32 bushels per acre.

The comparative value of superphosphate of lime and guano for potatoes is a matter of discussion, just now, and we were in hopes that these experiments would have thrown some light on the subject. Unfortunately, however, the guano was applied in the hill with the potato, and of course, the "seed was injured" and the crop lessened. Under these circumstances it is hardly surprising that the guano, except in one instance, gives a less increase than the superphosphate. Our own experiments and observations on this point, lead us to the conclusion that good Peruvian guano is a far superior manure for potatoes, than superphosphate of lime. And indeed, Mr. E. found in another experiment with Irish lunkers, that guano, applied on the *top of the hill* at the time of planting, produced a better crop than superphosphate of lime similarly applied. Thus, the unmanured plot gave, per

acre, 78½ bushels; the superphosphate 110 2-3; and the guano 156 bushels. It is said, too, that in this case also the seed was injured, though doubtless less so than where the guano was in actual contact with the tubers. It is seen that the guano doubles the crop, and gives 45 bush. per acre more than the superphosphate of lime.

A tablespoonful of salt-petre (nitrate of potash) applied in the hill, gave 75 2-3 bushels per acre, or 3 bushels *less* than where nothing was applied. This is in accordance with the previous year's experiments, where salt-petre *lessened* the crop 4 bushels per acre. A teaspoonful of sulphur gave an incsease of 6 bushels; of gypsum an increase of 8 bushels; and a handful of charcoal an increase of 26 bushels per acre.

The experiment of early, medium, and late planting, was again tried, in 1853, and resulted, as before, in favor of early planting. Variety Irish lunkers; whole tubers, planted in hills three feet apart. Those planted May 9th gave 104 bushels, May 30th, 70 bushels, and June 18th only 45 bushels per acre.

We must say that these interesting, well designed, and accurately conducted experiments, would have been, to the writer at least, far more satisfactory, had they been on a larger plot of ground: 25 and 30 hills each is certainly not enough, since any accidental variation is multiplied by 190, or 160, in calculating the acreage results. Better far have fewer experiments, on a sufficient scale to render them demonstrative, than a large number on so small a scale as to render the results uncertain.

Best Sheep for New-England.

Messrs. Editors—I wish to occupy a small space in the Country Gentleman for one or two numbers, in conversation with my Brother Farmers, particularly of the New-England States, with regard to the cultivation of the best breed of Sheep for their future profit That a large portion of our country has been fitted by the former convulsions of nature, to be used only as grazing districts, is the experience of all mountain farmers. Our hill-sides, covered with rocks and stones, present such obstacles to their cultivation by the plow, that it would be useless to try to compete with our western neighbors in the cultivation of wheat for a living. Grazing, then, must continue to be as it has been, the principal source of income for the farmers of the mountainous portions of our country.

The great Author of nature has so economized the productions of the earth to the wants of the different animals feeding upon them, each variety appropriating something which would be rejected by the others, that it becomes the interest of nearly every one to introduce on their farms a few of each different kind of domestic animals.

Every farm then, should have upon it a small or large flock of sheep, according to the extent of its territory. They will grow and thrive in some places where it would be almost impossible for larger animals to get a decent living. They will eat briars, brakes, and many kinds of weeds, which would be entirely rejected by the cow, or horse, and thus turned to profit.

Our farms being already pretty well stocked with this branch of husbandry, it is important to inquire whether we already possess the best breed for the profit of the farmer, that is, whether we shall continue on with our present fine wooled flocks, or change them for a kind that will appropriate their food more as flesh and fat, regardless of the quantity and quality of their wool.

The western states afford such facilities for the raising of fine wool at a small cost, that it would be folly to entertain the idea of a successful competition with them. Where land can be obtained at a cheap rate, and flocks of one or two thousand can be attended by one man with the help of his dog, and wool being so light for transportation to market, this must become a business which the western farmer will enter into on a large scale. Already we are feeling the effects of this competition severely. In this section, two clips of wool are lying in our chambers, and buyers are leaving it and going to the west, and purchasing their wool where it can be obtained at a cheaper rate. The consequence will probably be, that the raising of fine wool will be abandoned in the Eastern states.

Meat is in great demand as food for our growing population. New and thriving villages are continually springing up among our New-England hills, connecting themselves by a network of railways to the farming districts, and these villages swarming with a consuming instead of producing population, will continue to enhance the price of meat of all kinds for many years to come.

That the Merino species of sheep is unsuited as meat producing machines, is evident from their structure and habits. The large quantity of oil which escapes from their bodies, filling their wool, and sometimes covering it with a hard crust, is said to be animal fat, thus wasting an important production for the farmer's profit. They are generally wild in their nature, and restless in their habits, thus wasting considerable portions of their food by this means.

Good mutton is considered the healthiest of meats, and its consumption is on the increase in this country. The prices range higher than for either pork or beef, and I am satisfied that with the right breed it can be made cheaper.

The most profitable breeds for mutton purposes, consist principally of the South Down, Leicester, Cotswold and New Oxfordshire. This last variety is said to be an improvement on the Cotswold. They were first imported into this country by Mr. Clayton Reybold, of Delaware. In the year 1846, he visited England for the purpose of examining their various breeds of mutton sheep, with a view to introducing the best into this country. After careful examination, he chose the New Oxfordshire, as combining the greatest number of good qualities, all things considered.

In a "Prize Essay," written some time ago by Mr. Robert Smith, of England, and published in the Journal of the Royal Ag. Society, the following language is used:

"The New Oxfords are termed long wools, but more

from the circumstance of their not coming under the denomination of Leicesters, than from their extra wool bearing properties. They are bred principally in Oxfordshire, and the surrounding districts, particularly in the neighborhood of Broadwell, the residence of Mr. Charles Large—Charlesbury, the residence of Mr. Smith, and Sevenhampton, the residence of Mr. Handy, the most eminent breeders, and to whom *great credit is due for their exertions in raising this valuable breed to its present high state of perfection.*"

"They are of large dimensions, and have a great propensity to fatten, arising from their wide frame, quietude, and open texture of flesh, which is of quick growth, and consequently expands itself more rapidly than flesh of other qualities, but they do not possess that exactness of form peculiar to smaller animals, though they have a better carriage. *For many years the male animals have been eagerly sought after with a view to increase the size and frame of other long-wooled breeds.*"

One of the most extensive breeders and improvers of this kind of sheep is Mr. JOHN T. ANDREW, of West Cornwall, Ct. In the spring of 1853, I purchased a few of these sheep from his flock, and from what little experience I have had with them, they fully sustain the high reputation which Mr. Andrew has given them in the former numbers of the Country Gentleman.

In the next communication, I shall give the results of experience with this breed of sheep, and draw some comparisons between them and the Merinos, from actual experiments, with regard to their mutton and wool bearing qualities, also the result of crossing between these two breeds, and the way how the farmer of limited means can receive immediate benefit from this or other mutton breeds. LAWRENCE SMITH. *Middlefield, Hampshire Co., Mass., Dec.* 25, 1854.

Soaking Fence Posts in Chloride of Zinc.

MESSRS. EDITORS—In the January number of the Cultivator, 1855, I notice the article which I sent you relating to soaking fence posts in chloride of zinc for their preservation. At your desire I cheerfully communicate all the information I possess respecting its use.

It was recommended to a friend of mine by a distinguished chemist, as being effectual in preserving wood, in the ground, for many years. Some white birch poles which I have used for beans two summers, yet remain quite sound, with the bark on, and cut to a point, large end down.

The zinc should be used in the proportion of three quarts of the chloride to thirty-three gallons, or one barrel of water. The best way is to use a wooden tank, or box, and soak them all at once, about a week. It can be done, however, by using a barrel half full of the above preparation, and stand the posts in it upright, immersing only the part to be used under ground, allowing them to remain in the liquid the same length of time as above stated. The price of the zinc was sixty cents a gallon, when I bought mine, of the Roxbury Chemical works, who have an agency in Boston, I believe, HENRY BURDELL, Esq., No. 70 State Street.

Zinc has been used extensively as a disinfectant—one part zinc to 16 parts water.

I take the liberty also to send you, abridged, Mr. GREEN'S recipe for using blue vitriol for preserving wood: "One pound blue vitriol to forty pounds of water. Soak dry timber about ten days. If it is green, six days will answer. It will do for all kinds of timber. Shingles will soak in four days. When a batch is taken out, more vitriol should be added. I have a piece of bass wood which has been in the ground six years, and is perfectly sound. L. B. SUMNER.

Inquiries in Fruit Culture.

Please inform me in an early number—Is there a disease on *quince trees*, resembling the knot on the Plum—a species of Black Wart, looking like small bunches, on the older limbs? [We have never met with such a disease] Can you state the cure?

Would severe amputation of the branches be likely to be beneficial to rather old Quince trees? [Cutting out old, crooked, and stunted wood, would be decidedly beneficial—we have seen old trees which were quite unproductive, when so treated in connection with renewed cultivation, bear large, fine, and fair crops.]

In your opinion, would a rather moist situation suit the Currant, Gooseberry, or Blackberry best—shady—not soaking but near a drain? [We know of none of our common fruits, that succeed well on a soil so much soaked that air cannot easily enter the interstices—if so wet as this, underdraining will be desirable.]

Do you know of any cure for the gummy spots left on young peach trees after a long-past removal of small branches? [We have not encountered this difficulty—try ashes and good culture. JM. P. *West Philadelphia, Pa.*

HEADING DOWN TALL-STEMMED TREES.—Will a tree about four years old, (Apple, Pear, or Cherry) with a long trunk, send out new shoots if the trunk (or stem) is shortened say 2 feet below the present fixed branches or head of the tree. J. L. H.

Apple and pear trees may be very safely headed down in the manner proposed, and they will in all ordinary cases, throw out fresh shoots. The better way probably, would be to remove nearly all the smaller branches above, and keep most of the new shoots rubbed off, which will tend to throw out new ones below, without making a large wound. But if the whole stem must be amputated, the wound should be well covered with a coating of shellac varnish or other composition. It would be unsafe to remove the whole top of a *cherry* tree at once, as it does not re-produce shoots so rapidly—a part at a time would be best.

GAS TAR IN HORTICULTURE.—We published some time since, a paragraph under this title from a French paper. We can add as a further proof of the repulsive nature of gas tar, and its destructive effects on insects, a statement recently made to us by HUMPHRY HOWLAND, Esq., of Aurora, N. Y., that he had found it incomparably the most efficient agent for destroying the common orchard caterpillar in his orchards. All that is necessary is to apply it by means of a swab on a pole, and the slightest touch that the insects receive from the pungent and corrosive liquid, kills them instantly.

Answers to Inquiries.

THE ESCAPE OF AMMONIA FROM GUANO, &c.—Much is said against the farmers for allowing their stable and barn-yard manure to be exposed to the rains and heat of the sun, by which the ammonia is caused to escape and the manure made of little value. Will you inform us why the ammonia in guano, which is exposed to the heat of a tropical sun, does not escape? Will not heat without water cause the ammonia to escape from common manures? A SUBSCRIBER. *Manchester, Vt.*

Fresh excrements do not contain ammonia. They contain urea and other nitrogenous substances which by decomposition yield carbonate of ammonia. If no decomposition or fermentation took place, there would be no ammonia formed and consequently no loss. Moisture and a somewhat elevated temperature are both essential to fermentation. Hence the dung of fowls deposited in rainless regions, and where, from the intense heat, the water it contains is speedily evaporated, does not ferment, and the ammonia therefore does not escape, simply because it does not exist in the guano as ammonia. Were guano moistened and kept at a warm temperature, it would speedily ferment, and a large quantity of ammonia be thrown off.

LEACHED ASHES, &c.—Can you give me any information in regard to the use of leached ashes on sandy land. Also in regard to the use of waste leys of soap boilers, on sandy soil. It contains about 2 per cent. of potash, 8 to 10 per cent. of salt, and 1 per cent. of animal matter. JAMES HARTNESS. *Schenectady, N. Y.*

A dressing of leached ashes, at the rate of 100 to 150 bushels per acre, we have seen attended with very beneficial results on wheat, on sandy and gravelly soil. Old leached ashes frequently increase the yield of wheat, on soil on which unleached ashes have no effect. The value of leached ashes for wheat, therefore, cannot be attributed to the potash they contain, otherwise the unleached would prove very beneficial for wheat, which is certainly not the case. The value of the waste leys for wheat, therefore, is not very great. In most cases we should expect little or no benefit from them. For beans they would probably prove a good fertilizer. For clover and peas, too, they may be useful.

CHIPS AS A MANURE, CHURNING AND UNDERDRAINING.—I should be exceedingly obliged if you would give your opinion to the following questions: Are turning chips valuable for manure, as they would naturally be thrown out of the stable and mixed with other yard manure? If not injurious to the land, I would like to use them as bedding.

We have great difficulty in "fetching" our butter. We feed turnips twice a day. The women think this the cause of the trouble. Do you think so?

I have a piece of land of three acres; how many underdrains (ditches) ought I to have in order to drain it as it should be? S. W. COWLES. *Unionville, Ct.*

Chips or sawdust contain considerable fertilizing matter, but they decompose so slowly as to be of little or no manurial value. Uuless used in very large quantity they would not be injurious; on heavy land they would probably prove immediately beneficial, from their mechanical action, and would ultimately furnish carbonaceous matter to the plants.

We believe English farmers think that turnips, besides imparting a disagreeable taste, render cream difficult of churning, and, many writers to the contrary notwithstanding, seldom feed turnips or ruta bagas to their *milch* cows. Mangel wurzel and beets are, we think, much the better roots for milch cows. By keeping the cream for a few days at a temperature from 60° to 70°, so that it will sour, we have rarely met with much difficulty in churning, even though the cows had turnips. We should be glad if our experienced correspondents would give their opinions on this point.

The number of underdrains required to drain land, depends so much on the character of the soil, and whether it contains springs, &c., that it is impossible to give any general rule. We have seen a level field of tenacious clay only effectually drained by putting drains three and a half feet deep, one rod apart. There is land that does not need draining at all, and much that does may be drained thoroughly by placing the drains eight or ten rods apart. The deeper the drains, as a general thing, the fewer will there be required.

HOP CULTURE.—*A Beginner.* You will find all the information you desire on this subject, in the vol. of THE CULTIVATOR for 1853, from a first-rate hop-grower of Otsego county. If you have not the vol., it will be sent you bound, post-paid, for $1.

FARMER'S ENCYCLOPEDIA.—I wish to inquire, what book, on Scientific Agriculture, or perhaps some Agricultural Encyclopedia, you would advise for the use of a Farmer's Club. H. A. N.

The *Farmer's Encyclopedia*, Philadelphia edition—price $4—is a valuable work, and probably the best for your purpose.

CANDLE-WICK.—Will you be so kind as to inform me of the best method of preparing candle-wicks previous to dipping, so that they will give a clear light, without smoking, and oblige a subscriber. B.

Steep the wicks in lime-water and saltpetre, and dry them. The flame is clearer, and the tallow will not run. *First rate* cotton wicking, and clear pure tallow, are all-essential. Lamps will have a less disagreeable smell by dipping the wick-yarn in strong, hot vinegar, and drying it.

HOMINY MACHINE.—Is there a Hominy machine that you can recommend that runs with a band? If so what is its cost? What revolution must it have? Does it run with single or double geer? Will it make as good hominy as the ordinary domestic pestle, and what amount will it turn out per hour?

Please answer the above, and oblige your well wisher and subscriber. M. B. *Frankfort, Ky.*

[Will some of our southern correspondents answer this inquiry—it is quite out of our northern latitude.]

HOP CULTURE.—*G. W. D.* You will find the articles of *An Otsego Hop Grower*, on the culture of hops, in the Co. Gent., vol. 1, pp. 3, 99, 146 and 194—also in The Cultivator for 1853, pp. 12, 82, 113, 143.

HOO SUNG.—In answer to several inquiries, we state that Mr. J. B. GARBER has given notice that he can no longer furnish the seed of this plant.

WHEN you see a fence down, put it up; if it remains until to-morrow the cattle may get over. What ought to be done to-day, do it, for to-morrow it may rain.

Agricultural Societies.

United States Agricultural Society.

The third Annual Meeting of the United States Agricultural Society will be held at Washington, D. C., on Wednesday, February 28, 1855.

Business of importance will come before the meeting. A new election of Officers is to be made, in which it is desirable that every State and Territory should be represented.

Lectures and interesting Discussions are expected on subjects pertaining to the objects of the Association, by distinguished scientific and practical Agriculturists.

The various Agricultural Societies of the country are respectfully requested to send delegates to this meeting; and all gentlemen who are interested in the welfare of American Agriculture, who would promote a more cordial spirit of intercourse between the different sections of our land, and who would elevate this most important pursuit to a position of greater usefulness and honor, are also invited to be present on this occasion. MARSHALL P. WILDER, *President.*

W. S. KING, SECRETARY.

New-York State Agricultural Society.

ANNUAL MEETING OF THE NEW-YORK STATE AG. SOCIETY. The annual meeting of the New-York State Agricultural Society, will be held in this city on Wednesday, February 14th, 1855. In the evening there will be a lecture on Entomology. On Thursday evening, the annual address by the President of the Society. There will also be held on the 13th, 14th, and 15th, a Fat Cattle Show, at WOOLFORD'S Bull's Head, Washington Street; and an exhibition of dressed meats, and poultry, grain and seeds, butter, cheese, fruits, &c.

The following Judges are appointed:

FARMS.—Enoch Marks, Fairmount; E. W. Bushnell, Hillsdale; L. T. Marshall, Vernon Centre.

AGRICULTURAL ESSAYS AND DRAINING.—Hon Geo. Geddes, Fairmount; J. J. Thomas, Macedon: Hon. E. N. Pratt, Greenbush.

BUTTER AND CHEESE.—Hon. Moses Eames, Jefferson county; Levi Shaw, Rensselaerville; David H. Cary, Albany.

FIELD CROPS.—WHEAT, RYE AND OATS.—Joseph W Ball, Schuyler's Lake; Jonathan Tallcott, Rome; J. W. Jolley, Coeymans.

INDIAN CORN, BARLEY AND BUCKWAEAT.—F. P. Root, Sweden; L. W. Hall, Syracuse; Z. M. Saunders, Albany.

PEAS, BEANS, POTATOES, ROOTS, GRASS SEEDS, &c.—E. Cheseborough, Guilderland; Henry Keeler, South Salem; D. A. Bulkeley, Williamstown, Mass.

GRAIN AND SEEDS.—John McDonald, Salem; D. S. Curtis, Canaan Centre; Wm. Bacon, Richmond, Mass.

FAT CATTLE AND SHEEP.—Thomas Bell, Mott Haven; Thos. H. Rutherford, East Chester; Hugh Crocker, Utica.

DRESSED MEATS.—Robert Rome, Genesee; J. W. Bacon, Waterloo; P. Crispell, Jr., Hurley.

WINTER FRUITS.—Herman Wendell, M. D., Albany; George Ellwanger, Rochester; Henry W. Ludlow, Jr., Yonkers; T. G. Yeomans, Walworth; L. M. Ferris, Coldenham, Orange county.

ARRANGEMENTS FOR POMOLOGICAL EXHIBITION.—J. McD. McIntyre, Albany; Elisha Dorr, Albany; William Newcomb, Pittstown.

ARRANCEMENTS FOR EXHIBITION.—B. B. Kirtland, Jr.; E. Corning, Jr.; B. P. Johnson.

Pamphlets containing the list of premiums, regulations, &c, will be furnished on application to the Secretary, B. P. JOHNSON, Albany, N. Y.

WAYNE CO. AG. SOCIETY.—The Annual Meeting of this Society was held in this village on the 13th inst. The following persons were elected Officers for the ensuing year:

President—Dewitt C. Van Slyck, Lyons.
Cor. Sec'y.—E. Ware Sylvester, do.
Rec. Sec'y.—P. P. Bradish, do.
Treasurer—Wm. D. Perrine, do.
Vice Presidents—Joseph Watson, Clyde; E. N. Thomas, Rose; A. G. Percey, Newark; Stephen Tincklepaugh, Sodus; T. G. Yeomans, Walworth; Samuel E. Hudson, Palmyra; Dr. J. M. Wilson, Walcott.
Ex. Com.—E. Ringer, Galen; Samuel J. Cole, Lyons; David Griffith, Sodus; Alfred Hale, Lyons; Daniel Jennison, Galen. DEWITT C. VAN SLYCK, *Lyons, Dec.* 15, 1854.

QUEENS CO. AG. SOCIETY.—The annual meeting was held at Hempstead, Dec. 6, when Hon. Isaac E. Haviland was chosen President; John Harold, Hempstead, Cor. Sec'y; R. Willetts, Flushing, Rec. Sec'y; and a vice-president and manager for each town was also chosen. The payments for the past year, were $1,004.26, leaving in the treasury a balance of $256 61.

OTSEGO CO. AG. SOCIETY.—At the annual meeting held at Cooperstown, Dec. 14, the following gentlemen were chosen as officers of the Society for the ensuing year, viz:

President—JOSEPH W. BALL.
1st Vice President—BENJAMAN PIERCE
2d do—L. W. RATHBONE.
3d do—GEO. CLARK, Hartwick.
Secretary—J. B. WOOD.
Treasurer—GEORGE P. KEESE.
Executive Committee—John A. Rathbone, Noel Harrington, William B. Van Woert, John S. Brown, Alexander H. Clark, William Davison, Zebediah Martin, David Bundy, George Field, Charles McLean, William I. Compton, William Shipman, David Taft, John H. Caswell, Seth T. Winslow, O. N. Shipman, Thomas T. Higby, Philip H. Potter.
Joseph A. Cheney, Marshal.

ONEIDA CO. AG. SOCIETY.—The following Officers have been elected by the Oneida County Agricultural Society, for 1855:

President—H. H. EASTMAN, Marshall.
Vice Presidents—C. BISHOP, Verona; L. ROUSE, Marshall.
Executive Committee—N. S. Wright, Vernon; H. N. Cary, Marcy; James M. Tower, Sangerfield; Jas. Merriman, Whitestown; Jonathan Tallcott, Rome; Henry Rhodes, Trenton; Pliment Mattoon, Vienna; George Bristol, Kirkland; Geore L. Brigham, Augusta; W. O. Laird, Floyd.
Treasurer—H. R. HART.
Secretary—J. WYMAN JONES.

RUTLAND (VT.) AG. SOCIETY.—At the recent annual meeting, the following officers were elected:

President—HENRY W. LESTER, Rutland.
Vice Presidents—John L. Marsh, Clarendon, Alonson Allen, Fair Haven.
Rec. Sec.—Warren H. Smith, Rutland.
Cor. Sec.— Daniel Kimball, Rutland.
Treasurer—Zimri Howe, Castleton.
Auditor—Hiram H. Dyer, Rutland.

TRUE IN SOME OTHER PLACES, TOO.—A Paddy, writing from the west, says "pork is so plenty that every third man you meet is a hog."

Notes for the Month.

VALUE OF LIQUID EXCREMENTS.—A correspondent (Vermonter) takes exceptions to the following statement made in the Country Gentleman of Aug. 10, by Mr. J. L. EDGERTON, Georgia, Vt.: "If the farmer will compare the analysis of guano with that of urine he will find urine as rich in every element of fertility as guano, with the exception perhaps of the phosphate of lime." Mr. EDGERTON evidently referred to the *dry matter* of urine, and is unquestionably right. The *dry matter* of sheep's urine Dr. GILBERT found to contain 20 per cent. of ammonia. The dry matter was obtained by acidulating the urine with muriatic acid, and then drying it in an evaporating bath. Samples of Peruvian guano have been found which contained 20 per cent. of ammonia; but it is considered a superior article when it contains 16 per cent. of ammonia. It is true, therefore, that pound for pound, dry urine is quite as valuable as the best guano; and all must be convinced that it is bad policy to send to Peru for guano, while the excrements run to waste at home.

POSTAGE ON SEEDS.—Mr. E. H. BLIVEN of Bridgewater, N. Y., writes us: "I wish you would call the attention of cultivators and others to the injustice of requiring postage on seeds at the rate of six cents per ounce and for printed matter only at the rate of one cent per ounce. I would suggest that you get the names of our most prominent agriculturists to a petition asking the postmaster general to let all packages of seeds of one pound or less pass through the mails at the uniform rate of one cent per ounce prepaid." We think with Mr. B. that justice to the great agricultural and horticultural interest requires such a change in the postage law as he suggests. But it is useless to petition the Post Master General. He has no power to act in the matter. Congress alone can alter the law. A petition to congress might do some good, but the best way would be to attend to these matters at election time and send men to Washington who have some sympathy with agricultural pursuits and rural improvement.

A ROGUE.—A gentleman of Noblesville, Indiana, writes us that a pretended agent for our papers, has been taking up subscriptions in that neighborhood for THE CULTIVATOR, and charging $1 per year. We have one of his receipts, from which it appears his name is *W. M'Given* or *M'Goun*. He is an impostor, and we caution the public to beware of him. We believe he is liable to a term in the State's Prison for obtaining money under false pretences.

TEA WHEAT.—Mr. E H. BLIVEN of Bridgewater, N. Y, has sent us a very fine sample of "Tea wheat," recently introduced in his neigborhood from Canada. It is a spring whest, "a strong grower, with coarse stiff straw, and less liable to smut, or the attacks of the weevil, than other varieties of wheat cultivated in that vicinity." Mr. B. has had some of it floured, and it produced 44 lbs. of superfine flour to the bushel. It yielded last season of drouth, 20 bushels per acre.

CHOICE SEEDS.—We are indebted to I. N. BRIGGS of West Macedon, Wayne Co., N. Y., for a package of choice seeds. Our readers will see by referring to our advertising columns of last week that Mr. BRIGGS is prepared to supply orders by mail.

WHEAT CROP OF GREAT BRITAIN.—The Mark Lane Express says:—"The average of the three Scotch counties last year stands thus;

Roxburghshire,	22 bushels.
Haddington,	26 "
Sutherland,	32 "

giving a general average of about 26 bushels; but this is under ordinary years. Upon the whole, our averages are rising—that is to say, they now exceed what they were a few years back; and probably 28 bushels per acre may not be far from the ordinary average of England. With regard to the average of this year, opinion is so much divided that, as yet, it is hardly safe to give a definite estimate, some setting it at one-fourth above that of ordinary years, others at a great deal less."

ALBANY COUNTY AG. SOCIETY.—The second annua meeting of the Albany County Ag. Society was held in the State Agricultural Rooms on the 3d inst. There was a large attendance of members who manifested a deep interest in the welfare of the Society. There is now in the hands of the Treasurer $1,100, and the prospects of the Society are most encouraging. Some have thought that the farmers of Albany County could not sustain an Agricultural Society, and their past inactivity gave some plausibility to the opinion. The success of the fair last year, however, and the interest now manifested lead us to hope that the Albany County Ag. Society will soon be what there is no reason it should not long have been one, of the most flourishing and influential in the state.

The following officers and managers were elected for the current year:—

President—Judge A. OSBORN, of Watervliet.
Vice President—LUTHER TUCKER, of Albany.
Secretary—G. I. VAN ALEN, of Albany.
Treasurer—L. G. TEN EYCK, of Bethlehem.

Managers—Albany, Robert Thompson; Berne, Christopher Warren; Bethlehem, Richard Kimmey; Coeymans, Alexander E. Millis; Guilderland, Henry Sloan; Knox, Stephen Marcellus; New Scotland, Joseph Hilton; Rensselaerville, Levi Shaw; Watervliet, Lawrence J. Cobee; Westerlo, Horace E. Robbins.

WIRE WORMS—THEIR TENACITY OF LIFE.—I have been experimenting a little with wire worms. I took some quick lime and made a paste with it about as thick as cream, and placed six wire worms in it, stirring them in. I went to them in three days expecting to find them dead, but they were as smart as ever, and crawled readily out of the lime. Not being satisfied with this, I procured three or four more, put them in a glass tumbler, and poured on them aqua fortis (nitric acid) enough to cover them. They lived in it about half an hour. The acid affected them only in the mouth, their oily shell protecting them elsewhere. If any of your readers can give anything that will be effectual in destroying them, it will be gladly received in this vicinity. W. E. VROOMAN. *Oswego, N. Y. Jan.* 4, 1855.

THE CROPS, &C, IN MICHIGAN.—In a business letter, Mr. B. J. HARVEY of Salmagundi, Lenawee Co., Mich., writes: "I have resided here 21 years, and I never knew the wheat crop so light as it was last season. I think the average in this county, was not over 6 bushels per acre, occasioned by the ravages of the weevil and other insects. Of corn we had a medium crop; but for the brown grub and wire worm, it would have been large. Fall plowing will destroy the grub, but proves of no avail against the depredations of the wire worms.

There is a great scarcity of farm laborers here, consequently our land is but half tilled. What can one man do on sixty, or, as in some cases, one hundred acres of improvement? Send on your farm laborers, there is room here; but agriculture can never be brought to perfection in the great west, so long as there are good farming lands to be located."

Mr. H. remarks that the wheat now on the ground looks well, but it is already more or less affected with the insect.

CRIB BITING, a correspondent of the *Boston Cultivator* thinks, arises from a disordered state of the stomach and loss of appetite. He recommends a mixture of salt and ashes, one part of the former to four of the latter.

AMERICAN HERD BOOK.—We have received from LEWIS F. ALLEN, Esq., a circular addressed to shorthorn cattle breeders, respecting the publication of a second edition of his American Herd Book. Shorthorns are becoming so numerous in this country, that a new Herd book is indispensable, and we hope Mr ALLEN's proposition will be well seconded by shorthorn men, and a second edition issued. We shall publish the circular next week.

THE HORTICULTURIST.—The January number of this standard "Journal of Rural Art and Rural Taste," abounds in just such things as every one who has a house and garden should desire to know. We quite agree with its spirited publisher that "the Horticulturist should have a circulation of Twenty Thousand." And if fine engravings of houses, fruits, flowers, &c, neat typographical execution, and above all able, practical, varied and interesting contents offer any attraction to the intelligent portion of our rural and suburban population, he will certainly get it. It is a matter of surprise to us how such an elegant work can be afforded at the low price of $2 per annum to single subscribers, and at $1,50 each, in clubs of four.

The demand for the edition with colored plates was so great last year that it was found impossible since each plate is colored by hand, to get enough to supply orders. The price this year has been raised to $5. in the hope of getting fewer orders. We trust it will prove effectual, as should orders come in too freely we fear our colored copy might be struck off the exchange list, and we would not be without it on any account. Published by JAMES VICK, Jr., Rochester, N. Y.

THE CONNECTICUT VALLEY FARMER.—Of this paper it is sufficient to say that Prof. J. A. NASH, the author of the "Progressive Farmer," and the writer of the interesting letters on English agriculture in the back volumes of the COUNTRY GENTLEMAN, is the Editor. Progressive and scientific in its tone and object, it does not mislead its readers by the indiscriminate advocacy of every so-called improvement which mercenary self-styled professors of agricultural science, endeavor to palm off on the farming community; but it tries to winnow the wheat from the chaff,—to prove all things and hold fast that which is good. Published by J. A. NASH, Amherst, Mass. Price $1. a year.

STONE DRAINS.—On my farm is abundance of stone (principally lime) for building, fencing and ditching purposes. I have built some 800 rods blind ditch, laid with stone, with throat,—cap and small stones on top; all of which continue to work well, although some of them have been laid fifteen years. I have not used tile—and may not until I have used up my surface stone. "Perhaps it is a mistake." Notwithstanding the extreme drouth of the past summer, corn growing on land previously blind ditched suffered but little; it did not curl, and produced a good crop. The same effect was seen on a lot of clover pasture, producing a continued and luxuriant growth through the season. R. J. B. *Clifton Spa. N. Y.*

UNDERDRAINING PAYS.—A correspondent at Lancaster, N. H., writes: "I had a piece of land that was so wet that cattle could not go on to it. I underdrained it, and broke it up late in the fall of 1853, and planted it to potatoes without plowing or a particle of manure. The piece yielded over two hundred bushels per acre, and were sold at 34 cents per bushel without sorting." This is $68 per acre, and doubtless pays the whole expense of draining, cultivation, &c.

IMPROVEMENT.—There is great room for improvement in agriculture in most parts of our country, and especially in this section of New-York; and being reared upon a farm, and subsequently having had opportunity for pretty extensive observation by home travel, and a somewhat intimate acquaintance of the relations of *Chemistry with Agriculture*, I cannot but feel more and more deeply the importance and even necessity of a higher standard of *practical* knowledge among Farmers. *Excelsior* should be the motto with every farmer throughout our extended domain. J. W. S.

REMEDY FOR CAKED BAGS IN COWS.—In the Cultivator a while since, one of your correspondents wished a remedy for caked bag in cows. I have cured a great many cows, by boiling a large handful of coke or garget root, in two gallons water, and after skimming out the roots, when boiled, use one third of the water in a mess with bran, and the three messes have never failed to effect a cure even where the cow gave bloody milk SEWALL SERGEANT. *Stockbridge, Mass.*

OLD GRASS LANDS.—Some one inquires in an English journal, what the editor would advise him to do in order to improve a field which, for many years, has been used as a hay-field one year, and next year as a pasture. What, especially, is the best top-dressing for old grass land? In reply the editor informs his querist that his system of cutting for hay and grazing alternately is most injurious, and cutting should be abandoned if he wishes to have a valuable meadow for depasturing. As the soil, it may be supposed, is probably impoverished of the phosphate of lime, the editor advises to apply superphosphate of lime at the rate of 4 to 6 cwt. per acre. This may be applied during open weather in Jan. or Feb., and a fall of snow will tend to wash it into the soil. Half a cwt. of nitrate of soda, or sulphate of ammonia, if applied in the end of March or beginning of April, will, it is said, most probably be well repaid by increased produce.

To the above, we would be disposed to add, dragging the field with a harrow having teeth pretty closely set together, then sowing grass seed or a mixture of seeds and then cross dragging.

SUPPOSED ANTIDOTE TO POTATO DISEASE.—It is certainly true that the result of every inquiry or experiment, which promises to throw any light on the mysterious failure of the potato plant, is worthy of attention. A correspondent of The Mark-Lane Express, acting on the theory that the disease arises from the want of some element in the earth which is necessary to its healthy growth, (a theory, by the way, which perhaps but few will assent to,) and having observed that where the potato was diseased the stalks or vines generally went prematurely to decay, was induced to try the following experiment. He had a plot of land on which he had raised potatoes for three years in succession. Two-thirds of the crop of 1853, were diseased. In the spring of 1854, he planted the half of his plot in the usual way, and the other half had a dressing of silicate of potash, which was neither more nor less than *clinkers*, or half vitrified residuum of coal, adhering to the grates of furnaces. This was ground very fine, and placed in the rows or hills with the ordinary manure. The produce was all sound; the stalks remaining green and strong until the potatoes were taken up. On the other half of the piece, the potatoes were diseased and the stalks or vines decayed early. If any of our readers should repeat this experiment, the public would be gratified by being informed of the result.

ENGLISH WEIGHTS.—We find in the English Farmer's Magazine, the following statement of the different weights of the "stone:"—

"Smithfield, 8 lbs. of 16 oz.; imperial weight, 14 lbs of 16 oz.; common Scotch, 16 lbs of 16 oz.; Glasgow Tron, 16 lbs. of 22 oz.; Ayrshire Tron, 16 lbs. of 24 oz.; Dutch, 17½ lbs. of 16 oz. Nothing is more desirable in Britain than an equalization of weights and measures; the hitherto Legislative acts on the subject are not *compulsory*, and therefore useless for the intended purpose."

The Housewife.

How to Cook Cabbage.

[We give the following mode, which may suit some of our readers, for trial. *Habit* makes the presence of vinegar agreeable, but its disuse might render it as undesirable as it would be on asparagus or cauliflower.]

This vegetable abounds more in muscle-forming material (fibrine) than any other, and it is, in my view, one of the most palatable dishes when properly cooked, that can be served up. The usual mode of cooking cabbage as a boiled dish, with other vegetables and fat meat, and served up saturated with grease and flavored with turnips, beets and carrots, is not only unwholesome but very unpalatable to most people. But many bring themselves to think they like it by adding a little vinegar, (which renders it still more unhealthy) as they do tobacco and many other disagreeable things to an unperverted taste. This is one cause of so much prejudice existing among the majority of people against what is usually denominated a boiled dish.

The manner of cooking the vegetable in question, which I would strongly recommend, is the same as is recommended by Dr. Trall, in one of his works on hydropathy, and is simply this: Boil it entirely by itself in pure water untill cooked perfectly soft, then serve up. When eaten, add butter and salt to your liking. No other seasoning whatever should be used, as pepper and vinegar in most cases tend to weaken the stomach, and corrode the enamel of the teeth. This vegetable cooked in this way, stands unrivalled as an article of human food, and is at once pleasant, nutritious and agreeable, and perfectly agrees with the most sensitive stomach or most inveterate invalid. I would strongly urge it upon your readers to try it, believing since potatoes are so scarce and dear, that if cooked in this way universally, it will soon become a leading article of human food. EPICURE.

Sausage Meat.

After several years experience, I have found the fol lowing recipe to be the best for preparing sausage meat of any that I have ever seen.

To 50 lbs. of chopped meat, add
1¼ lbs. of salt,
4 oz. of good black pepper,
14 table spoonfuls of sage.

Hoosick. E. CROSS.

BUCKWHEAT PORRIDGE.—Take one quart of rich, new milk; boil it briskly, and stir in very gradually as much meal as will bring it to the consistence of thick, stiff mush; add one teaspoonful of salt, and one tablespoonful of butter, not more. In five minutes after it has become thick enough, take it from the fire. Serve while hot, and eat with butter and sugar or honey, or with butter and molasses.

OYSTER FRITTERS.—Strain a quantity of fresh oysters over liquor, and form a thin batter, with a couple of eggs and some fine family flour. Stir the oysters in, and heat some butter and good lard, *hot*, in a suitable dish, and put in the fritters. Fry, till it is well browned, and in turning, be careful not to break them.

THE ILLUSTRATED

Annual Register of Rural Affairs

AND

CULTIVATOR ALMANAC for 1855,

ILLUSTRATED WITH

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It will be seen from this abstract of the contents of the *Illustrated Annual Register*, that it has been prepared with special regard to the wants of our rural population, and we hazard little in saying that it will afford more valuable information on several of the subjects of which it treats, than has ever before been presented at so small a cost. The chapters on Country Dwellings—Improving and Planting Grounds, and the Culture of Fruit, have been prepared by Mr. J. J. THOMAS, with his usual taste and ability, expressly for this work, and are each well worth more than its cost.

This number of the Annual Register is intended as the first of a series, to be issued annually at or near the close of each year. Filled as they will be mainly with matter of permanent interest, they will form a series which no man, having a farm or garden, or hopes of future retirement to rural scenes, should be without.

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Jan. 18—w&mtf.

THE HORTICULTURIST,

And Journal of Rural Art and Rural Taste.

THE HORTICULTURIST is a Monthly Journal, devoted to HORTICULTURE and its kindred ARTS, RURAL ARCHITECTURE, and LANDSCAPE GARDENING. It is edited by P. BARRY, the author of that popular work, *The Fruit Garden*, and for many years the Horticultural Editor of the *Genesee Farmer*. Mr. BARRY is universally acknowledged to be one of the best Pomologists in the world, and eminently fitted for this responsible station. He is aided by the best Horticulturist in the country.

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Feb. 16, 1854—w&mtf

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Brahma Pootra Fowls.
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Nov. 23—wtf Albany.

PURE BLOOD DEVONS.

SANCHO, 2 years old last spring—awarded premium at State fair in 1853.
Stately, 10 years old—Beautiful figure.
Sancho the 2d, 8 months old.
Also 4 Pure Blooded French Merino Ewes.
The Devons are from Mr. R. H. Van Rensselaer's of Morris, Otsego Co., N. Y. The French Merinoes from A. L. Bingham's, Vt The best of references can be given for the above—also their proper Pedigree.
PELEG WEEDEN.
Jan. 4—wtf Preston Hollow, Albany Co., N. Y.

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OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

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E. E. PLATT.
Nov. 9, 1854—w&mtf. Albany.

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We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than 2½ feet deep; and that this implement is made in a thorough and workmanlike manner.

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Dealers in Agricultural Implements, we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negociate with you. All, wanting any further information, will please address PRATT & BROS
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Nov. 23, 1854—w&m3m. Newark, Ohio.

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Ground Plaster, suitable for agricultural purposes—
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Stately, 10 years old—Beautiful figure.

Sancho the 2d, 8 months old.

Also 4 Pure Blooded French Merino Ewes.

The Devons are from Mr. R. H. Van Rensselaer's of Morris, Otsego Co., N. Y. The French Merinoes from A. L. Bingham's, Vt The best of references can be given for the above—also their proper Pedigree.

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Embracing all the most hardy and valuable kinds for general cultvation. They would especially call the attention of the Fruit-grower, to their large stock of PEAR TREES, which for *good* quality and *low price*, they believe to be unrivalled. Also a general assortment of Fruits, from the Apple to the Strawberry.

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74 Cortlandt Street, New-York.

WATERTOWN, Mass, Oct. 19, 1854.

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I am, gentlemen, very respectfully,
Your obedient servant,
Jan. 18—w1am4t—m4t BENJAMIN DANA.

Agricultural Books,

For sale at the office of the Country Gentleman.